JUGONNATH SUNKERSETT
PRESENTATION.

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ENGLISH BOTANY;

OR,

COLOURED FIGURES

OF

BRITISH PLANTS,

WITH THEIR

ESSENTIAL CHARACTERS, SYNONYMS, AND PLACES OF GROWTH.

TO WHICH WILL BE ADDED

OCCASIONAL REMARKS.

BY

JAMES EDWARD SMITH, M.D. F.R.S.

MEMBER OF THE IMP. ACAD. NATURÆ CURIOSORUM, THE ACADEMIES OF STOCKHOLM, UPSAL, TURIN, LISBON, LUND, BERLIN, PHILADELPHIA, AND THE NAT. HIST. SOCIETY OF PARIS;

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THE FIGURES BY

JAMES SOWERBY, F.L.S.

——"VIRESQUE ACQUIRIT EUNDO." *Virg.*

VOL. XXI.

7x.12.1

LONDON:

PRINTED BY RICHARD TAYLOR, RED LION COURT, FLEET STREET;

And sold by the Proprietor, J. SOWERBY, at No. 2, Mead Place, Lambeth; LONGMAN and Co.; and SHERWOOD, Paternoster Row; and by all Booksellers in Town and Country.

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V
Selvage
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Swertia perennis.

April 1. 1805. Published by Jas. Sowerby, London.

SWERTIA perennis.

Marsh Swertia.

PENTANDRIA Digynia.

GEN. CHAR. *Cor.* wheel-shaped, with a pair of honey-bearing pores at the base of each segment. *Caps.* superior, of 1 cell, with 2 valves.

SPEC. CHAR. Corolla in five segments. Radical leaves ovate.

SYN. Swertia perennis. *Linn. Sp. Pl.* 328. *Sm. Fl. Brit.* 284. *Huds.* 102. *With.* 280. *Hull.* 55. *Jacq. Fl. Austr. t.* 243.

AS a native of Britain this fine plant rests on the word of Hudson only, who asserts that Richardson found it in Wales, but does not mention his authority, nor has any other person confirmed the report. It is very rare even on the Alps, growing in watery meadows, and flowering in August. Having gathered it wild, and finding it very little altered in colour by drying, we have, after consulting Jacquin's figure, which is too pale, caused a very faithful representation to be made, which we trust will be the more acceptable as the plant can scarcely be cultivated in a garden. To be kept alive it must be planted in black bog earth, and constantly inundated to the height of 5 or 6 inches, so that it is hardly possible to transport the roots, though perennial, from their native mountains.

The long fibres of the root are intensely bitter. The herb is quite smooth. Stem a foot high, square. Leaves chiefly radical, on stalks, ovate, entire. Panicle of many greyish-blue flowers on purplish stalks. Corolla with many fine ribs, the nectaries fringed and greenish. Germen often abortive. The genus is next akin to *Gentiana*, and agrees with it in qualities.

April 1. 1805. Published by Jas. Sowerby, London.

VELLA annua.

Annual Cress-rocket.

TETRADYNAMIA Siliculosa.

GEN. CHAR. *Pouch* with a partition twice as long as its valves, projecting in an ovate form beyond them.

SPEC. CHAR. Leaves pinnatifid. Fruit pendulous.

SYN. Vella annua. *Linn. Sp. Pl.* 895. *Sm. Fl. Brit.* 675. *Huds.* 278. *With.* 564. *Hull.* 143.

Nasturtium sylvestre, Erucæ affine. *Raii Syn.* 304.

THIS is a native of open sandy fields, and was found in Ray's time near Stonehenge on Salisbury plain by Mr. Lawson. We have heard of its being gathered there at a more recent period; but, having never seen a wild specimen, our figure represents a garden one.

The root is annual. The plant varies much in size according to the luxuriance of the soil, but is not otherwise changed by culture. The stem is more or less branched, leafy, rough with deflexed bristles. Leaves alternate, doubly pinnatifid, roughish, often tinged with purple. Spikes, or rather *corymbi*, of many upright flowers, whose petals are pale yellow veined with purple. Calyx bristly, purplish, its leaves cohering longitudinally. Pouch bent downward as it ripens, globose or elliptical, rough, crowned with its own partition extended in an oval flat form much beyond the valves. Three or four roundish seeds are lodged in each cell.

Only one more species of this singular genus is known, *V. Pseudo-cytisus*, which, as well as the *annua*, is a native of Spain.

Nechera pumila.

April 1. 1805. Published by Jas. Sowerby, London.

NECKERA pumila.

Small Feathery Neckera.

CRYPTOGAMIA Musci.

GEN. CHAR. *Caps.* oblong, from a lateral scaly sheath. *Outer fringe* of 16 sharp teeth; *inner* of 16 capillary alternate ones. *Veil* smooth.

SPEC. CHAR. Branches pinnate. Leaves in two ranks, ovate, slightly undulated. Fruit-stalk not much longer than the sheath.

SYN. Neckera pumila. *Hedw. Sp. Musc.* 205. *Crypt. v.* 3. 49. *t.* 20. *Sm. Fl. Brit.* 1272.

Hypnum pennatum. *Dicks. Crypt. fasc.* 1. 5. *t.* 1. *f.* 8. *With.* 852. *Hull.* 268.

Fontinalis pennata. *Huds.* 468; the synonyms wrong.

MR. BORRER has obligingly favoured us with specimens of this moss from several parts of Sussex. It spreads flat over the trunks of trees, and is very rare in fructification. Indeed few parts of Britain can boast it at all, nor does it seem to be known in any other country, Hedwig's figure being drawn from a specimen, destitute of lid or veil, sent him by Lightfoot. Mr. Dickson, who first observed it in Sussex, rightly described it as different from the *Fontinalis pennata*, for which Hudson had mistaken it, little suspecting it to be new. Having found the trees covered with it (but without fruit) between Troutbeck and Ambleside in the summer of 1782, I have from that time had no doubt of its being Hudson's plant.

The stems are branched and pinnated, clothed with pale pellucid shining ovate entire leaves in 2 ranks. When dry the leaves are transversely undulated or plaited, but less than in *N. crispa*, *t.* 617. Sheaths axillary, long and taper. Stalk not much longer than the sheath, straight, tawny. Capsule inclining, elliptical, tawny, smooth. Lid short, conical, incurved. Veil of a similar form, but larger. Fringe pale and tender, of 16 striated teeth, and as many very small ones between them, all soon falling off.

1444

1626.

Anomodon curtipendulum.

April 1 1808 Published by Jas Sowerby, London.

NECKERA curtipendula.

Pendulous Neckera.

CRYPTOGAMIA Musci.

GEN. CHAR. *Caps.* oblong, from a lateral scaly sheath. *Outer fringe* of 16 sharp teeth: *inner* of 16 capillary alternate ones. *Veil* smooth.

SPEC. CHAR. Stem branched, spreading. Leaves ovato-lanceolate, pointed, even, spreading. Capsules on longish stalks, drooping.

SYN. Neckera curtipendula. *Hedw. Sp. Musc.* 209. *Sm. Fl. Brit.* 1275.

Hypnum curtipendulum. *Linn. Sp. Pl.* 1594. *Huds.* 504. *With.* 864. *Hull.* 274. *Dicks. H. Sicc. fasc.* 4. 19.

H. dentatum curtipendulum, viticulis rigidis. *Dill. Musc.* 333. *t.* 43. *f.* 69.

H. arboreum repens, capitulis reflexis, brevibus pediculis insidentibus. *Raii Syn.* 89.

GATHERED by Mr. J. Woods and Mr. G. Sowerby on an old wall near Pont-y-pool, South Wales. It occurs now and then on rocks and trees in rather mountainous countries, bearing fruit in the early part of summer, but is far from common.

The stems grow prostrate and loosely entangled, forming a multitude of short leafy branches, which are sometimes very taper, and take root at their extremities. Leaves imbricated every way, a little spreading, of a dull or yellowish green, even (not undulated), ovate or lanceolate, pointed, with one rib and a thickish entire edge. Sheaths long and tapering, of many closely imbricated leaves. Fruit-stalks red, more than twice as long as the sheaths. Capsules ovate, pendulous till they are very old. Lid conical, short, curved. Fringe of 16 narrow incurved teeth, with the same number of minute intermediate ones.

1445

1538.

Hypnum
sericeum.

April 1. 1805. Published by Jas Sowerby London

HYPNUM sericeum.

Silky Feather-moss.

CRYPTOGAMIA Musci.

GEN. CHAR. *Caps.* ovate-oblong, from a lateral scaly sheath. *Outer fringe* of 16 teeth, dilated at the base: *inner* a variously-toothed membrane. *Veil* smooth.

SPEC. CHAR. Stem creeping. Branches adscending, crowded. Leaves ovate, pointed, erect, with three nerves. Lid conical.

SYN. Hypnum sericeum. *Linn. Sp. Pl.* 1595. *Sm. Fl. Brit.* 1282. *Huds.* 505. *With.* 864. *Hull.* 274. *Relh.* 430. *Abbot.* 251. *Curt. Lond. fasc.* 2. *t.* 69.

H. vulgare sericeum recurvum, capsulis erectis cuspidatis. *Dill. Musc.* 323. *t.* 42. *f.* 59.

H. repens trichoides terrestre luteo-virens vulgare majus, capitulis erectis. *Raii Syn.* 84.

Leskea sericea. *Hedw. Sp. Musc.* 228. *Crypt. v.* 4. 43. *t.* 17.

Neckera sericea. *Sibth.* 305.

VERY common on old walls, roofs, banks, and the trunks of trees, where it bears abundance of fruit in the winter and early spring; being readily known by its yellowish shining silky aspect.

The perennial stems spread straight, and closely crowded, over tiles or stones, attached by fibrous roots, and throwing up innumerable short crowded round leafy branches. Leaves imbricated every way, erect, ovate, pointed, entire, marked with 3 ribs, of which the lateral ones reach but half way from the base. Sheath oblong, pointed. Stalk deep red. Capsule upright, ovate, brown, smooth, contracted at the mouth, rarely a little incurved. Lid conical, blunt, generally curved.

1446
1518.

Hypnum Donianum.

Dec 1 1818. Published by Jas Sowerby London

HYPNUM Donnianum.

Donnian Feather-moss.

CRYPTOGAMIA Musci.

GEN. CHAR. *Caps.* ovate-oblong, from a lateral scaly sheath. *Outer fringe* of 16 teeth, dilated at the base: *inner* a variously-toothed membrane. *Veil* smooth.

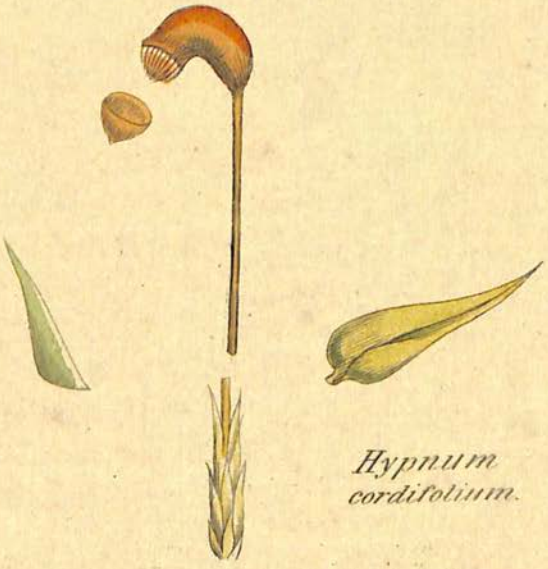
SPEC. CHAR. Stems tufted, simple or divided, bearing fruit from their base. Leaves imbricated every way, ovate, without nerves. Capsule cylindrical, erect.

SYN. Hypnum Donnianum. *Sm. Fl. Brit.* 1286.

WE believe this moss has never been noticed by any other botanist than Mr. G. Donn, who found it, in August 1802, on a bank by the side of a rivulet, upon the high mountains of Cairngorm (vulgarly called Corum Gorum) in Inverness-shire, nor has he seen it elsewhere.

The whole plant has a pale-green shining silky appearance. The stems in the specimens described in *Fl. Brit.* were simple, but we have recently seen others once or twice divided; they grow in tufts, but whether upright or decumbent we are not informed; they are slender, especially at the base, round and leafy. The leaves are loosely imbricated every way, ovate, obtuse, rarely tipped with a minute point, entire, reticulated, without any real nerve, though sometimes the vessels run so as to look like one. Fruit-stalks from the base of the stem, solitary, shorter than the stem, wavy, of a light reddish hue, brighter at the bottom. Sheath minute. Capsule upright or nearly so, of a cylindrical urn shape, smooth, when old and dry somewhat angular, pale rusty brown. Fringe yellow. Lid convex, with a short curved beak.

1568.



Hypnum cordifolium.

May 1. 1805. Published by Jas Sowerby, London

HYPNUM cordifolium.

Heart-leaved Feather-moss.

CRYPTOGAMIA Musci.

GEN. CHAR. *Caps.* ovate-oblong, from a lateral scaly sheath. *Outer fringe* of 16 teeth, dilated at the base: *inner* a variously-toothed membrane. *Veil* smooth.

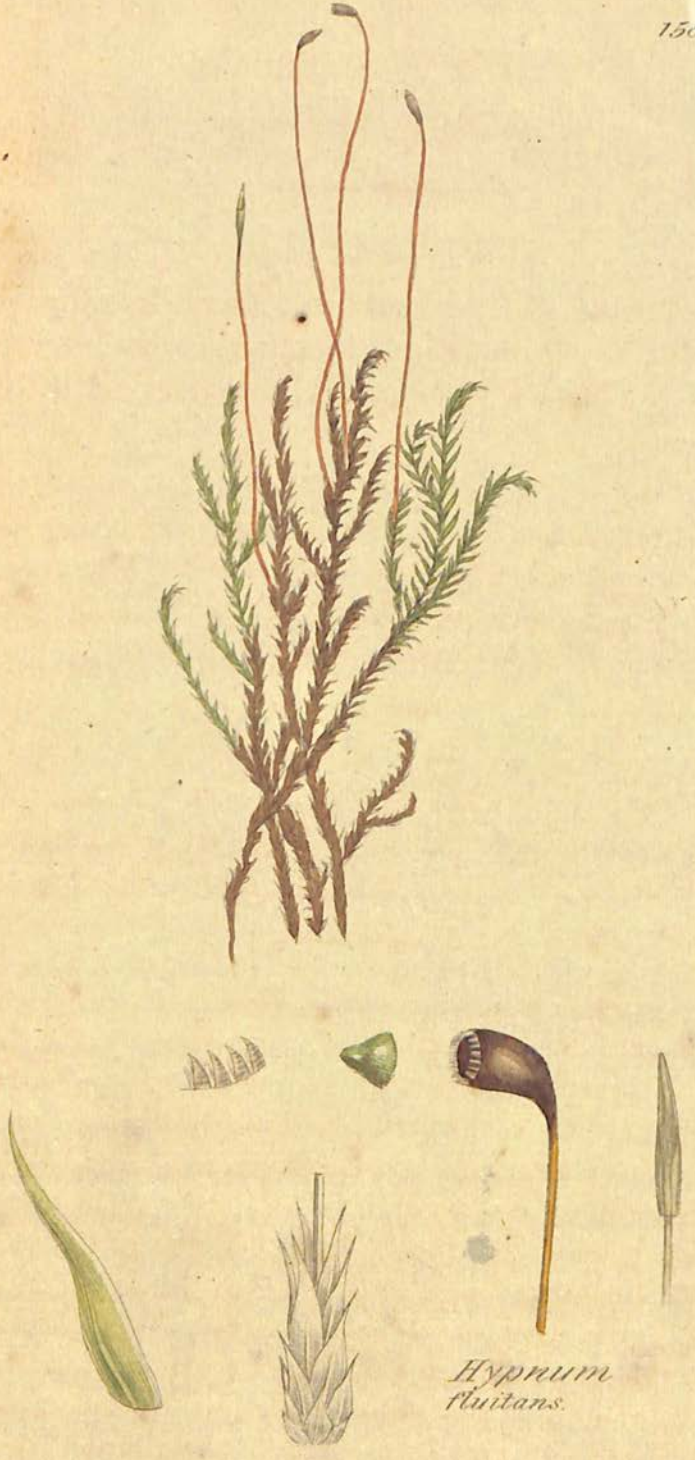
SPEC. CHAR. Stem erect. Branches short. Leaves spreading, heart-shaped, bluntish, single-ribbed, rather remote. Lid hemisphærical, pointed.

SYN. Hypnum cordifolium. *Hedw. Sp. Musc.* 254. *Crypt. v.* 4. 97. *t.* 37. *Sm. Fl. Brit.* 1318. *Swartz. Musc. Suec.* 62. *Roth. Germ. v.* 3. 319.

THE above synonyms are all that can be found for this very rare *Hypnum*, which was equally unknown to Dillenius, Linnæus, Haller and all other botanists till Dr. Swartz found it in Sweden, and the celebrated Hedwig in Germany. Neither of these eminent investigators ever saw the lid of the capsule. For that we are obliged to Dr. Schrader and to Mr. Winch, the latter having first observed this species in England, growing in watery places near Newcastle, and having favoured us with fine specimens, which exactly accord with the German and Swedish ones. Mr. G. Don gathered the same near Forfar in 1788, and since in marshes near Edinburgh.

It is nearest akin to *H. cuspidatum, t.* 1425, with which it accords in general habit and colour, but differs essentially in its leaves being heart-shaped at their base, distant from each other, and spreading so as to have the character of *squarrose*, not imbricated; but especially in their having a central rib. The fruit-stalks are long, each from a small scaly sheath. Capsule greatly curved, orange. Lid hemisphærical, or shortly conical, with a little sharp point.

1581.



Hypnum fluitans.

May 1. 1806. Published by Jas. Sowerby, London.

HYPNUM fluitans.

Floating Feather-moss.

CRYPTOGAMIA Musci.

GEN. CHAR. *Caps.* ovate-oblong, from a lateral scaly sheath. *Outer fringe* of 16 teeth, dilated at the base: *inner* a variously-toothed membrane. *Veil* smooth.

SPEC. CHAR. Stem somewhat pinnate. Leaves lanceolate, pointed, loosely spreading, single-ribbed. Lid convex, with a small point.

SYN. Hypnum fluitans. *Linn. Fl. Suec. ed.* 2. 399. *Sm. Fl. Brit.* 1319. *Hedw. Sp. Musc.* 296. *Crypt. v.* 4. 94. *t.* 36. *With.* 851. *Hull.* 270. *Relh.* 432. *Sibth.* 298. *Abbot.* 245. *Dicks. H. Sicc. fasc.* 16. 22. *Turn. Musc. Hib.* 182.

H. erectum aut fluitans, foliis oblongis perangustis acutis. *Dill. Musc.* 299. *t.* 38. *f.* 33. *Raii Syn.* 82.

THIS we also received from Mr. Winch of Newcastle in fructification, in which state it is extremely rare. The plant itself is not very unfrequently to be met with in clear still waters, in which it floats to a considerable extent, the stems being loosely pinnate, slender, very various in length. The leaves are of a pale or brownish green, loosely spreading, lanceolate, pointed, entire, very narrow, furnished with a central rib; the uppermost more or less curved and united into a hook, so that it very nearly approaches *H. aduncum,* and this is the case with the original Linnæan specimen. The fruit-stalks are long in proportion to the branches, capillary, reddish, from pointed sheaths. Capsule curved, ovate-oblong, short. Lid of a short conical pointed form. Fringe rather short.

Bryum ligulatum.

BRYUM ligulatum,

Long-leaved Thyme Thread-moss.

CRYPTOGAMIA Musci.

GEN. CHAR. *Caps.* ovate-oblong, smooth. *Fringe* double: *outer* of 16 teeth, broad at their base; *inner* a toothed membrane. *Flowers* terminal.

SPEC. CHAR. Stems simple, at length branched at the summit. Leaves oblong, undulated, serrated. Fruit-stalks clustered.

SYN. Bryum ligulatum. *Schreb. Lips.* 84. *Sm. Fl. Brit.* 1371.

B. undulatum. *Sibth.* 292. *Turn. Musc. Hib.* 133.

B. dendroides polycephalon, phyllitidis folio undulato pellucido; capsulis ovatis pendulis. *Dill. Musc.* 410. *t.* 52. *f.* 76.

B. nitidum, foliis oblongis undatis, capitulis cernuis, arbusculam referens. *Raii Syn.* 103.

Mnium undulatum. *Hedw. Sp. Musc.* 195. *With.* 806. *Hull.* 250. *Relh.* 420. *Abbot.* 235.

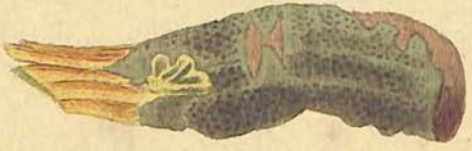
M. serpyllifolium δ. *Sp. Pl.* 1578.

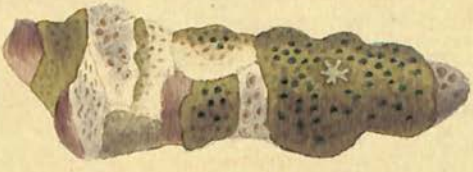
THIS very elegant *Bryum* is of frequent occurrence in damp shady places, bearing fruit, though rarely, in the spring. Our specimens were gathered at Swainsthorpe near Norwich by Mr. Stone, and in the west by Mr. Dillwyn.

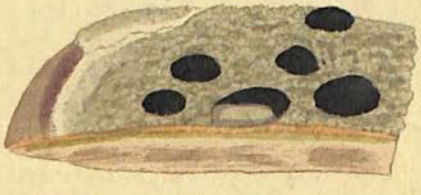
The stems form as it were a grove of fairy palm-trees, branching copiously in a very graceful manner where they bear either male or female flowers. The roots are creeping and perennial, shaggy with black woolly fibres. Leaves alternate, linear-oblong, obtuse, waved, sharply serrated, having a strong red rib. They are delicate and pellucid, drying and losing their beauty very soon after gathering. Fruit-stalks terminal, red, many together. Capsules pendent, red, short and thick.

We greatly prefer the name *ligulatum* to *undulatum*, because the latter has been applied to another Linnæan *Bryum*.

1450
3022







Lecidea parasema.

May 1 1815 Published by Jas Sowerby London

LICHEN parasemus.

Common Black-shielded Lichen.

CRYPTOGAMIA Algæ.

GEN. CHAR. Male, scattered warts.
Female, smooth shields or tubercles, in which the seeds are imbedded.

SPEC. CHAR. Crust thin, greyish, uninterrupted, somewhat granulated, black-edged. Shields sessile, flat, opaque, black, with a black smooth border: at length convex.

SYN. Lichen parasemus. *Ach. Prod.* 64. *Relh.* 453.
L. sanguinarius. *Lightf.* 803. *Sibth.* 320. *Hoffm. Enum.* 27. *t.* 5. *f.* 3, 4.
Lichenoides leprosum, crusta cinereo-virescente, tuberculis nigerrimis. *Dill. Musc.* 126. *t.* 18. *f.* 3, *Raii Syn.* 71.
Lecidea parasema. *Ach. Meth.* 35.

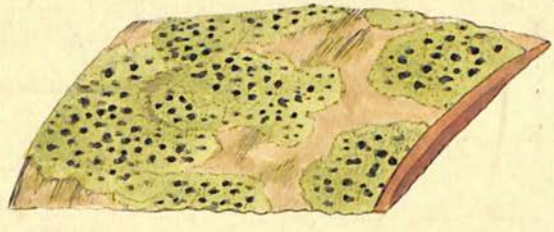
ONE of the most common of all Lichens on the smooth bark of trees, closely intermixed with *L. subfuscus* and some other thin-crusted species, from the patches of which it is distinguishable by its greener grey colour, and a thin black line which marks its edge. Hence Scopoli called it *limitatus*, a name which perhaps ought to have been retained. We nevertheless, to avoid controversy and confusion, adopt that of Dr. Acharius, which expresses the vulgarity of the species. Few indeed are more frequent or less attractive.

The crust is thin, and inseparable from the bark, slightly rugged and cracked, pale greenish grey with an uneven (generally black) edge. Shields numerous, irregularly crowded, small, sessile, but not at all sunk into the crust, of a deep dull black: when young flat or rather concave, with a smooth black border: when old convex, rugged, without a border. Being formed in winter, and lasting for a year or more, the shields (by the stretching of the bark) are often separated into oblong clusters. They are grey, not red, within.

Most authors have confounded this with *sanguinarius*, see our *v.* 3. *p.* 155, where it is alluded to as "growing on smooth young trees."

1451

2047



Lecidea Lightfootii?

May 1. 1806. Published by Jas. Sowerby, London.

LICHEN Lightfootii.

Lightfootian Lichen.

CRYPTOGAMIA Algæ.

GEN. CHAR. Male, scattered warts.
Female, smooth shields or tubercles, in which the seeds are imbedded.

SPEC. CHAR. Crust tartareous, granulated, greenish-white, black-edged. Shields sunk, flat, polished, black, with a black smooth border: at length convex.

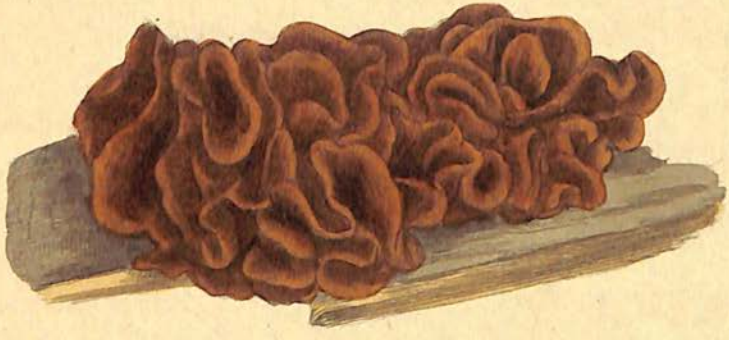
THIS grows on the bark of trees, and has been sent to Mr. Sowerby from Sussex by Mr. W. Borrer, and to Mr. Turner from the north of Ireland by Dr. Scott. A British specimen was given me so long ago as the year 1784, by the late author of the *Flora Scotica*, as a new Lichen, distinct from *sanguinarius* as well as from that in our last plate; and as his opinion seems not ill founded, I am happy to take this opportunity of applying his name to the species.

I am well aware how nearly this is related to the foregoing, and propose it rather for further inquiry than with any great confidence. The crust forms its principal distinction, being tartareous, and very strongly granulated; white within, greenish, not grey, without. The shields are immersed in the crust, and at every period of their growth overtopped by its granulations. They are black, rather shining, not quite opaque, somewhat concave when young, with a very thin smooth black border; when old they become slightly convex and rugged.

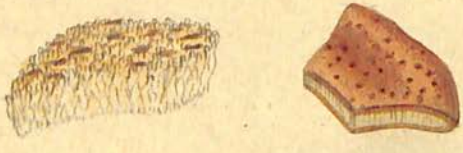
55386

1452

2568



Tremella ferruginea



May 1. 1806. Published by Jas. Sowerby, London.

TREMELLA ferruginea.

Plaited Rusty Tremella.

CRYPTOGAMIA Algæ.

GEN. CHAR. *Fructification* scarcely perceptible, in a membranous jelly-like substance.

SPEC. CHAR. Sessile, clustered, lobed, waved, of a rusty brown; the surface finely pubescent.

FOUND by Mr. Crowe at Lakenham near Norwich, growing on dead wood in wet weather in winter. We can find no description nor figure applicable to it, nor has any botanist who has seen our specimens been able to refer them to any known species.

The substance is gelatinous, pliable and tender, becoming thin, shrivelled, and shapeless, when dry, reviving, though imperfectly, on a reapplication of moisture. The segments are obtuse, lobed and waved, but not so plaited or sinuous as those of *T. mesenterica*, *v*. 10. *t*. 709, neither is the surface, as in that, smooth, but finely pubescent or granulated, the granulations pale, giving the plant a velvet-like gloss, with brown irregular specks, perhaps fructification, among them. The internal substance is white.

Bulliard's *tab.* 499. *f.* 6. X, which he considers as a variety of *T. mesenterica*, most resembles our plant; but that is smooth, with a violet tinge, giving out a fine red brown colour to water, which is of use in painting; all which is inapplicable to ours.

Juncus capitatus

AIRA cæspitosa.

Turfy Hair-grass.

TRIANDRIA Digynia.

GEN. CHAR. *Cal.* of 2 valves, 2-flowered. *Cor.* of 2 valves. *Florets* without any imperfect one between them.

SPEC. CHAR. Leaves flat. Panicle spreading. Petals awned, hairy at the base. Awn straight, short.

SYN. Aira cæspitosa. *Linn. Sp. Pl.* 96. *Sm. Fl. Brit.* 84. *Huds.* 34. *With.* 136. *Hull.* 20. *Relh.* 28. *Sibth.* 38. *Abbot.* 15. *Knapp. t.* 33.
Gramen miliaceum segetale majus. *Raii Syn.* 403.

NOT unfrequent in moist shady and hilly places, where it forms large tufts, flowering in June and July. It may occasionally be found about the borders of such corn-fields as are wet and shady, but not so generally as to justify the epithet *segetale*, given by the old authors, and which seems to have originated in some confusion between this grass and *Agrostis Spica-venti*, *t.* 951. Mr. Knapp however informs us that "no plant is so universal in all situations in Scotland as this *Aira*."

Root fibrous, tufted. Stems a yard high, erect, smooth, leafy, with about 2 joints. Leaves narrow, rigid and harsh, flat, but soon rolled in by drying; smooth beneath; ribbed and rough above. Stipula cloven. Panicle large and spreading, not drooping, shining, rough, brownish; pale in very shady situations. Flowers numerous and small. Calyx nearly equal, rough at the back. One floret is sessile, the other stalked, and the stalk is clothed with hairs reaching beyond the base of the floret. Corolla jagged at the top, its outer valve awned at the base.

This is a hard coarse grass, never eaten by cattle but in cases of great necessity.

Chenopodium glaucum.

May 1 1815 Published by Jas Sowerby London.

CHENOPODIUM glaucum.

Oak-leaved Goosefoot.

PENTANDRIA Digynia.

GEN. CHAR. *Cal.* 5-cleft, inferior. *Cor.* none. *Seed* 1, lenticular, invested with the closed five-sided calyx.

SPEC. CHAR. Leaves all oblong, with a deeply-waved edge; glaucous beneath. Clusters compound and dense, without leaves.

SYN. Chenopodium glaucum. *Linn. Sp. Pl.* 320. *Sm. Fl. Brit.* 277. *Huds.* 106. *With.* 272. *Hull.* 56.

C. angustifolium laciniatum minus. *Dill. in Raii Syn.* 155.

FOUND on sandy or gravelly ground in several parts of the neighbourhood of London, but not in many other places in England. It is annual, flowering in August, and varies greatly in size, from 2 inches to almost 2 feet, according to the moisture of the soil. In rich ground it grows extremely rank, losing its delicacy of colour, and much of those contrasted hues of green, red, and glaucous white, which in a poor soil render it more elegant in appearance than most of its family.

The stems are thickish, branched and spreading, often prostrate. Leaves alternate, stalked, oblong, uniform, bluntish, waved, almost sinuated; green and smooth above; mealy and white beneath. Clusters terminal and axillary, short, compound, dense, with a small leaf or two at their base, but none interspersed between their lobes. Calyx-lobes obtuse, smooth and entire. Seed blackish, very minutely dotted.

TYPHA latifolia.

Great Cat's-tail or Reed-mace.

MONOECIA Triandria.

GEN. CHAR. Male, *Cathin* cylindrical, hairy. *Antheræ* about 3 together on each filament.
Female, *Cathin* cylindrical. *Seed* 1, on a feathered stalk.

SPEC. CHAR. Leaves somewhat sword-shaped. Male and female catkins close together.

SYN. Typha latifolia. *Linn. Sp. Pl.* 1377. *Sm. Fl. Brit.* 959. *Huds.* 400. *With.* 111. *Hull.* 203. *Relh.* 360. *Sibth.* 25. *Abbot.* 199.
T. major. *Curt. Lond. fasc.* 3. *t.* 61.
Typha. *Raii Syn.* 436.

FREQUENT in pools, ditches and about the margins of slow streams, growing in the water, and familiar to the most casual observer by its tall stems and great mace-like brown spikes, which flower in July. Some persons mistake it for the Bull-rush, *t.* 666.

The creeping perennial roots run deep into the mud, and soon fill up the bottom of a pool or clay-pit when undisturbed. Stem about 6 feet or more in height, straight, simple, round, solid, smooth, leafy at the bottom. Leaves erect, linear, sharpish, smooth, flat, or at least very little convex beneath, smooth on both sides, as tall as the stem, and from half an inch to an inch wide. Catkin terminal, erect, continued; the female part dark brown; the male yellowish, with a leaf or two from the base or middle among the stamina. The antheræ grow 2, 3 or 4 on each filament, so that it is not easy to fix their proper number. They soon fall off, and leave a naked stalk crowning the ripening seed-catkin. Each seed stands on a feathery stalk.

TYPHA angustifolia.

Lesser Cat's-tail or Reed-mace.

MONOECIA Triandria.

GEN. CHAR. Male, *Catkin* cylindrical, hairy. *Antheræ* about 3 together on each filament.

Female, *Catkin* cylindrical. *Seed* 1, on a feathered stalk.

SPEC. CHAR. Leaves flattish, semicylindrical beneath. Catkins a little distant; leafless.

SYN. Typha angustifolia. *Linn. Sp. Pl.* 1377. *Sm. Fl. Brit.* 959. *Huds.* 400. *With.* 111. *Hull.* 203. *Reth.* 360. *Abbot.* 199. *Fl. Dan. t.* 815.

T. minor. *Curt. Lond. fasc.* 3. *t.* 62.

T. palustris media. *Raii Syn.* 436.

MUCH more rare than the last. Curtis found it in the middle of Woolwich Common. We have observed it in clay-pits in several parts of Norfolk and Suffolk, but scarcely in any other county. It flowers in July.

This is in all its parts much smaller and more slender than the preceding, though nearly equal to it in height. The leaves are more convex on the under side, and not half so broad. Its most essential mark of distinction consists in the bare space always observable between the male and female catkins. The roughness between the stamina, which in the former is formed of slender hairs, in this consists of chaffy scales. The fruit-bearing catkin sometimes splits longitudinally in growing.

We think Linnæus's original names preferable to those of Curtis, for though *major* might suit the first species, *media* more properly belongs to this; the *minor* of old authors being still smaller, and very different.

Typha minor.

TYPHA minor.

Dwarf Cat's-tail or Reed-mace.

MONOECIA Triandria.

GEN. CHAR. Male, *Catkin* cylindrical, hairy. *Antheræ* about 3 together on each filament.

Female, *Catkin* cylindrical. *Seed* 1, on a feathered stalk.

SPEC. CHAR. Leaves linear, convex beneath. Catkins a little distant; the male leafy; female short and turgid.

SYN. Typha minor. *Sm. Fl. Brit.* 960. *Bauh. Hist. v.* 2. 540. *Lob. Ic.* 81.

T. angustifolia β. *Linn. Sp. Pl.* 1378. *Huds.* 400.

T. palustris minor. *Dill. in Raii Syn.* 436.

T. palustris minima, duplici clavâ. *Moris. Sect.* 8. *t.* 13. *f.* 3.

MR. DANDRIDGE is said by Dillenius to have found this on Hounslow heath; and as the plant was well known and distinguished by botanists of that time, though confounded by Linnæus with *T. angustifolia*, we presume there could be no mistake about it. We have never seen any other than Genevan specimens; but having lately obtained more perfect ones than are described in the *Fl. Brit.* or any other work, those hitherto figured or mentioned having been defective in the proper leaves, we venture to present them to the English botanist.

The root is perennial and creeping, and the whole habit like the two preceding species, but the plant much smaller than even the last, the stem being only 12 or 18 inches high and very slender, sheathed with broad scales about half its length, which have hitherto been described and figured as the leaves. The real leaves however spring from a different parcel of similar scales, and are about as long as the stem, scarcely a line in breadth, slightly convex beneath and concave above. The catkins are each about an inch long, a little distant from each other, slender; the male with a leaf or two at its base, middle or summit; the female often divided and becoming proportionably very thick and swollen as it ripens seed. The receptacle seems to be nearly smooth, and the *antheræ* are seldom more than one to each filament.

Aspidium
Filix-mas.

May 1.1818. Published by the Society, London.

ASPIDIUM Filix mas.

Male Shield-fern.

CRYPTOGAMIA Filices.

GEN. CHAR. *Fructifications* scattered, in roundish dots, not marginal. *Involucrum* umbilicated, bursting almost all round.

SPEC. CHAR. Frond bipinnate; leaflets obtuse, serrated. Stalk scaly. Involucrum circular.

SYN. Aspidium Filix mas. *Swartz. Fil.* 38. *Sm. Fl. Brit.* 1121.

Polypodium Filix mas. *Linn. Sp. Pl.* 1551. *Huds.* 458. *With.* 775. *Hull.* 238. *Relh.* 411. *Sibth.* 270. *Abbot.* 226. *Bolt. Fil.* 44. *t.* 24. *Woodv. Med. Bot. t.* 49. *Dicks. H. Sicc. fasc.* 3. 19.

Filix mas vulgaris. *Raii Syn.* 120.

VERY common in dry hedge bottoms and other shady places, where as it unrolls its scaly buds in the spring it excites notice by its singularity. When fully grown, and covered with its innumerable spots of future seeds in June and July, it forms a handsome tuft, not unlike an ostrich plume.

The root is perennial, large, scaly, tufted, not creeping. Fronds 3 feet high, lanceolate, with brown scaly stalks, and composed of numerous compound leaves, whose leaflets are crowded, mostly alternate, oblong, smooth, obtuse, serrated, the serratures without bristles or spines. Dots of capsules in a single row on each side, near the rib, not reaching much more than half the length of each leaflet. Each dot is covered by a strong durable crenated scale, fixed by the side towards the base of the leaflet, but bursting all round, so as to become circular as the capsules swell. We have already announced the establishment of the genus *Aspidium* in *v.* 16. 1149.

The root of this species is a famous Swiss cure for worms; and we are told its nauseous and peculiar taste is perceptible in a quack medicine at present popular.

1463
1438

Asplenium Filix fœmina.

June 1. 1805. Published by Jas. Sowerby, London.

ASPIDIUM Filix fœmina.

Female Shield-fern.

CRYPTOGAMIA Filices.

GEN. CHAR. *Fructifications* scattered, in roundish dots, not marginal. *Involucrum* umbilicated, bursting almost all round.

SPEC. CHAR. Frond bipinnate; leaflets pinnatifid, serrated, pointless. Stalk smooth. Involucrum kidney-shaped.

SYN. Aspidium Filix fœmina. *Swartz. Fil.* 41. *Sm. Fl. Brit.* 1124.

Polypodium Filix fœmina. *Linn. Pl. Sp.* 1551. *Huds.* 458. *With.* 778. *Hull.* 239. *Relh.* 411. *Sibth.* 371. *Abbot.* 226. *Bolt. Fil.* 46. *t.* 25. *Dicks. H. Sicc. fasc.* 5. 18.

Filix mas non ramosa, pinnulis angustis raris, profundè dentatis. *Raii Syn.* 121.

ALMOST as common as the last, but in a different kind of situation, growing in marshy shady places. It is in perfection about July.

The root is large and tufted, bearing many very handsome fronds 18 or 20 inches high, of a broad acute lanceolate form and a full grass-green colour, smooth in all their parts. Their stalk is slender, pale, and very smooth. Leaflets (or primary divisions) alternate, lanceolate, pointed, subdivided into other leaflets, which are elegantly pinnatifid sometimes even pinnate, and obtusely notched, their lobes all destitute of any bristly termination; the upper ones are decurrent. Spots of fructification much smaller than in *A. Filix mas*, and not circular but oblong, or crescent-shaped, the involucrum being kidney-shaped, bursting towards the rib of the leaflet. The name merely alludes to the greater elegance or delicacy of this species compared with the last.

1460
1424.

Aspidium spinulosum.

June 2. 1808. Published by Jas. Sowerby, London.

ASPIDIUM spinulosum.

Lesser Crested Shield-fern.

CRYPTOGAMIA Filices.

GEN CHAR. *Fructifications* scattered, in roundish dots, not marginal. *Involucrum* umbilicated, bursting almost all round.

SPEC. CHAR. Frond nearly bipinnate; leaflets decurrent, elliptical, serrated or pinnatifid, their segments tipped with little spines. Common stalks smooth. Ribs zigzag.

SYN. Aspidium spinulosum. *Sm. Fl. Brit.* 1124.
Polypodium spinulosum. *Retz. Prod.* 250. *Fl. Dan. t.* 707. *With.* 772. *Hull.* 239. *Sym.* 191.
P n. 841. *Muller Fl. Fridr.* 193. *t.* 2. *f.* 2.
Filix pumila saxatilis altera. *Pluk. Phyt. t.* 179. *f.* 5.

MR. J. T. Mackay of Dublin gathered this specimen last September in a cavern on Spike Island, near Cove, below Cork, Ireland. Dr. Scott has found the same in the north part of that kingdom. We never saw it before except in Mr. Rose's herbarium. Muller and Plukenet have figured it well, but Dr. Withering first made it known as a British plant. Probably it may have been confounded with the following species.

The root is creeping. Fronds about a foot high, each with a long slender stalk, which is quite smooth except its very base. The primary divisions are so deeply pinnatifid as to be almost pinnate; their lobes elliptical, sharply serrated or pinnatifid, thin and delicate, each incision tipped with a spine. The rib of each pinnula is very much waved or zigzag. Dots of capsules rather small, with a circular covering.

1461
1425.

Aspidium dilatatum.

Jan 1 1843 Published by J.C. Sowerby, London

ASPIDIUM dilatatum.

Great Crested Shield-fern.

CRYPTOGAMIA Filices.

GEN. CHAR. *Fructifications* scattered, in roundish dots, not marginal. *Involucrum* umbilicated, bursting almost all round.

SPEC. CHAR. Frond bipinnate; leaflets deeply pinnatifid, sharply cut, segments tipped with little spines. Common stalks scaly. Involucrum circular.

SYN. Aspidium dilatatum. *Sm. Fl. Brit.* 1125.

Polypodium dilatatum. *Hoffm. Germ. v.* 2. 7.

P. cristatum. *Huds.* 457. *With.* 778. *Hull.* 239. *Relh.* 410. *Sibth.* 270. *Abbot.* 226. *Bolt. Fil.* 42. *t.* 23.

P. n. 845. *Muller. Fl. Fridr.* 193. *t.* 2. *f.* 4.

Filix mas ramosa, pinnulis dentatis. *Raii Syn.* 124. *Pluk. Phyt. t.* 181. *f.* 2.

IN shady moist sandy places, or moist rocky woods, not very unfrequent, producing seeds in July, and varying much in size.

The root is tuberous, scarcely creeping. Fronds from 1 to 3 feet high, broad and spreading, twice or almost thrice pinnate, their common and partial stalks all more or less scaly. Their secondary leaflets are nearly opposite, pinnate, at their base, pinnatifid upwards; the lobes small, oblong, deeply and sharply serrated or cut, their incisions spinous, their ribs less frequently zigzag than in the last. Dots of capsules numerous, distinct, with a circular covering.

2462

1696.

Dicranum virens.

June 1. 1805. Published by Jas. Sowerby, London.

DICRANUM virens.

Green Spur-fruited Fork-moss.

CRYPTOGAMIA Musci.

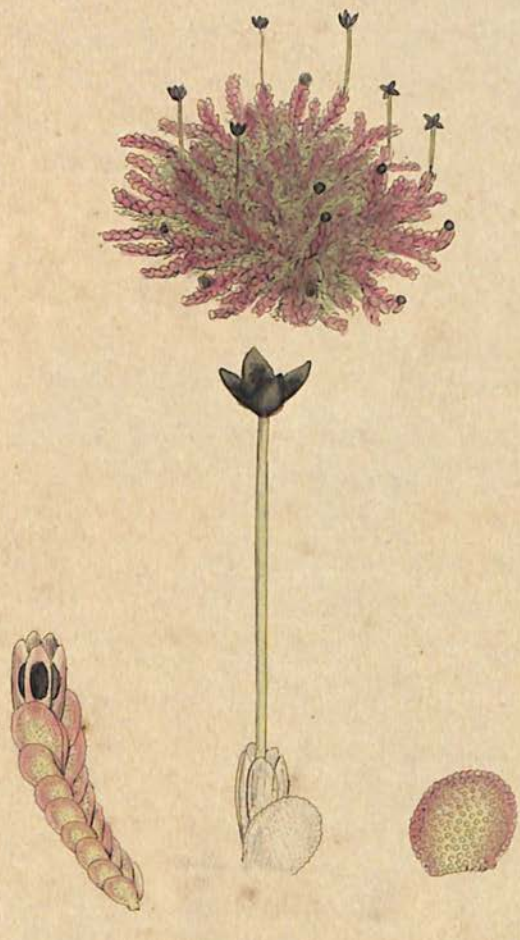
GEN. CHAR. *Caps.* oblong. *Fringe* of 16 flat, cloven teeth, a little inflexed.

SPEC. CHAR. Stem branched. Leaves linear-lanceolate, twisted when dry. Capsule curved, smooth, with a prominence at the base.

SYN. Dicranum virens. *Swartz. Musc. Suec.* 33. *Sm. Fl. Brit.* 1406. *Hedw. Sp. Musc.* 142. *Crypt. v.* 3. 77. *t.* 32. *Turn. Musc. Hib.* 69.

MR. TURNER, in his work on Irish Mosses, gives the present species as a native of that country, and we have also received Scottish specimens from Mr. G. Don, gathered on the highland mountains, and have compared them with Dr. Swartz's original Swedish ones. It is perennial, and bears fruit in the summer months.

The stems form tufts, and are 2 or 3 inches high, erect, leafy, branched; blackish and downy in their lower part. Leaves of a fine bright green, linear-lanceolate, entire, slightly revolute, keeled, with a central rib; dilated and clasping the stem at their base; taper and sharp at the point, curved and twisted by drying. Fruit-stalks at first terminal, solitary, about an inch long, slender, brown when old, sheathed with broad leaves (*a*) at their base. Capsule red-brown, cylindrical, much curved, smooth (not furrowed as in *D. strumiferum* and *polycarpum*), tapering at the base, and furnished with a sharpish prominence or spur. Veil pale, tipped with brown. Lid conical, tapering, shorter than the capsule, sometimes curved.



Jungermannia crenulata

June 1. 1816. Published by Jas. Sowerby, London.

JUNGERMANNIA crenulata

Crenulated Jungermannia.

CRYPTOGAMIA Algæ.

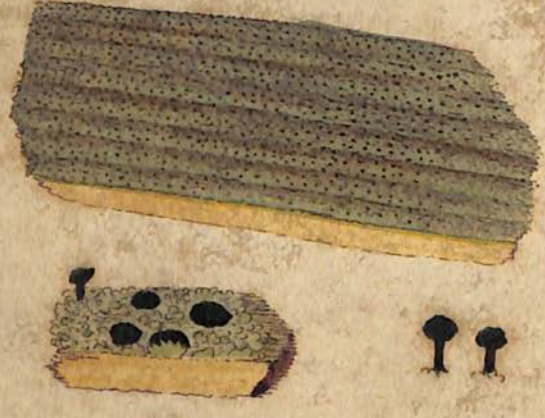
GEN. CHAR. Male flowers sessile.
Capsule on a stalk rising from a sheath, of 4 valves.
Seeds attached to elastic filaments.

SPEC. CHAR. Stems simple or divided, spreading. Flowers terminal. Leaves two-ranked, imbricated, orbicular, undivided, with a thick crenulated border, without auricles.

THIS elegant and curious *Jungermannia* was sent us last March by Mr. W. Borrer junior, from some bogs at Amberley, Sussex. We can find no description nor specimens with which it agrees, and therefore venture to describe it as new.

It comes near to *J. emarginata, t.* 1022, in many respects, and should be arranged in the same section, having simple imbricated leaves, and terminal fruit-stalks. It differs however in its round undivided leaves, whose margin is very remarkable, being thick and finely crenate, or as it were beaded. The stems grow in tufts, spreading, and are mostly simple, throwing out roots from their under side. Sheath terminal, solitary, with 5 plaits and as many blunt teeth. Fruit-stalk about half an inch long, whitish. Capsule of 4 blackish acute valves. The leaves and sheath have a rich purple hue mixed with pale green, and the former are finely dotted.

1484



Tuber L. Mag. Published by J.C. Sowerby, London.

LICHEN graniformis.

Grained Lichen.

CRYPTOGAMIA Algæ.

GEN. CHAR. Male scattered warts.
Female, smooth shields or tubercles, in which the seeds are imbedded.

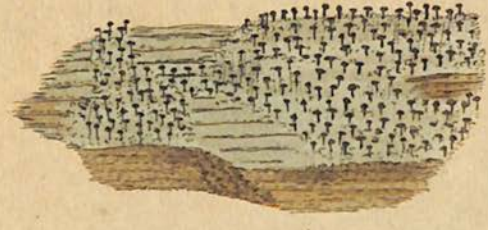
SPEC. CHAR. Crust granulated, smooth, greyish white. Tubercles scattered, roundish, black, polished, wrinkled, irregular, without a border, mostly sessile.

SYN. Lichen graniformis. *Hagen. Lich.* 47. *t.* 1. *f.* 2. *Dicks. Crypt. fasc.* 1. 10. *With. v.* 4. 7. *Hull.* 285. *Sibth.* 319.
Calicium claviculare, roscidum. *Ach. Meth.* 90.

THIS minute *Lichen* seems to have been involved in needless obscurity. Hagen's synonym cannot be questioned, and we can answer for those of Dickson and Acharius on the authority of original specimens, but we have no positive means of ascertaining the references of the excellent writer last mentioned.

Mr. D. Turner first observed this species on a wooden barn of Mr. Crowe's at Lakenham, where we have often examined it since, and have found it always the same. The crust forms broad patches on the flat boards, and is thin, loosely granulated, of a greyish white, the particles rounded, smooth (not mealy), running into lines, as Hagen well observes, from the grain of the wood. The tubercles with us are sessile, scattered, small, roundish, irregular, extremely wrinkled, very black, but rather polished, without any kind of border. Some of them in Dr. Acharius's specimen stand on thick flattish stalks, like those of the *Bæomyces* tribe, but their surface never becomes powdery. We conceive therefore this must be totally distinct from his *Calicium claviculare*, see our next plate, though he rightly observes it is what has been taken by himself for black warts in *L. Ehrhartianus*, see *t.* 1136, with which it often grows intermixed.

1463
1900



Calicium clavellum.

June 1. 1805. Published by Jas. Sowerby, London.

LICHEN clavellus.

Grey-crusted Pin-headed Lichen.

CRYPTOGAMIA Algæ.

GEN. CHAR. Male, scattered warts.
Female, smooth shields or tubercles, in which the seeds are imbedded.

SPEC. CHAR. Crust rugged, cracked, greyish white. Tubercles on black foot-stalks, sphærical, flattish, black, powdery, with a greyish black border; grey beneath.

SYN. Lichen clavellus. *Ach. Prod.* 83.
Calcium claviculare. *Ach. Meth.* 90.

FOUND plentifully on the same barn with the preceding, with which it is often so intermixed that their two crusts can hardly be distinguished. That of the present however is thicker, lobed and cracked rather than granulated. The fructification is totally different. Little black, cylindrical stalks rise plentifully from the cracks of the crust, each bearing a round flattish head, black and powdery above, greyish beneath, and surrounded by a thin greyish border. A doubt has been suggested whether the crust belongs to these heads. From very careful examination, and the analogy of other species of *Calicium* in Acharius, we believe it does. It may be more doubtful whether our *L. spærocephalus t.* 414 be a different species. If we are right in its crust it is certainly so. However this may be, having now the true *L. clavellus*, compared with specimens from Acharius, and agreeing with them in crust and fruit, we think proper to figure it, as he says in his *Methodus* he could quote no certain synonym, nor figure, for it. We can assure him, notwithstanding the deference so justly his due that our *L. inquinans t.* 810, appears to us always quite distinct from this.

June 1 1805 Published by Jas Sowerby, London

LICHEN uliginosus.

Earthy Marsh Lichen.

CRYPTOGAMIA Algæ.

GEN. CHAR. Male, scattered warts.

Female, smooth shields or tubercles, in which the seeds are imbedded.

SPEC. CHAR. Crust olive-brown, granulated, gelatinous. Shields black, flattish, with a black smooth border; at length convex, and clustered.

SYN. Lichen uliginosus. *Schrad. Spicil.* 88. *Ach. Prod.* 69.

L. humosus. *Ehrh. Crypt. n.* 135.

Lecidea uliginosa. *Ach. Meth.* 43.

FIRST observed by Mr. D. Turner we believe in 1799, on wet sandy heaths near Yarmouth, from whence Mr. Francis Turner has lately favoured us with specimens. We have also received it from Mr. Borrer, who finds it plentifully in Surrey.

It is easily overlooked, being nearly of the colour of the black turfy soil, at least when dry. When moist it becomes of a dull olive or rusty green, covering the earth with its close gelatinous pulpy crust, whose granulated surface is soft and slimy to the touch. Numerous minute blackish shields are scattered over the hole, flat at first with an elevated smooth border of their own colour. In process of time they become larger, more conspicuous, prominent, convex, and clustered togeter.

ALOPECURUS fulvus.

Orange-spiked Fox-tail-grass.

TRIANDRIA Digynia.

GEN. CHAR. *Cal.* of 2 valves, containing a single floret. *Cor.* of 1 valve.

SPEC. CHAR. Stem ascending, bent at the joints. Spike compound, cylindrical. Glumes obtuse, hairy. Awn the length of the calyx. Antheræ roundish.

SYN. Alopecurus geniculatus, var. 4. *With.* 121. *Hull.* 16.

WE had never noticed this grass till Mr. Stone communicated it last summer from Swainsthorpe, four miles south of Norwich. The only certain mention of it is to be found in Withering, (for we have great doubts concerning his synonyms,) who suspected it might prove a distinct species, to which we assent without much hesitation.

It grows floating in the water like the common *A. geniculatus*, *v.* 18. *t.* 1250, but is at first sight very conspicuous on account of the length of its spike, and rich deep orange colour of its antheræ. On a close examination the parts last mentioned are totally different in form from those of the *geniculatus*, being not half so long, nor of a linear shape, but very short, thick, and almost round, deeply cloven at each end, bursting by an oval orifice at each side. When old they turn quite white. The glumes are obtuse, and fringed with very soft hairs. The awn also is peculiarly soft and slender, and not longer than the glumes. The general habit of the plant is much like that of *A. geniculatus*, but larger, and the spike more compound. The form of the antheræ must be considered as its most essential character, as their colour affords its most striking indication at a distance.

Spiræa salicifolia.

SPIRÆA salicifolia.

Willow-leaved Spiræa.

ICOSANDRIA Pentagynia.

GEN. CHAR. *Cal.* 5-cleft. *Petals* 5. *Capsules* superior, of 2 valves, with many seeds.

SPEC. CHAR. Leaves lanceolate, bluntish, serrated, smooth. Clusters terminal, compound.

SYN. Spiræa salicifolia. *Linn. Sp. Pl.* 700. *Sm. Fl. Brit.* 535. *With.* 463. *Hull.* 110. *Pallas. Ross. t.* 21. *Don. Herb. fasc.* 2. 32.
S. Theophrasti fortè. *Ger. em.* 1601.

THIS pretty shrub, frequent in ornamented ground, seems to be really a native of Britain; for besides the counties of Westmoreland and Cumberland, where it is said on good authority to grow, Mr. G. Don assures us that it is wild in Scotland. It prefers moist shady situations among mountains, and flowers in July.

The stems are numerous and shrubby, rising to the height of 4 feet; their bark smooth, of a yellowish or tawny hue. Leaves alternate, numerous, deciduous, on short stalks, of a broad lanceolate bluntish figure, unequally serrated, smooth on both sides, veiny. Clusters of flowers terminal, erect, dense, obtuse, compound, of many flowers, with linear solitary bracteæ interspersed. Calyx spreading, dark red, smooth. Petals and stamina of an elegant rose colour, much longer than the calyx. Germen depressed. Styles 5. Capsules 5, brown, opening at their inner edge. Seeds many, small.

1469

1085.

Hieracium
aurantiacum.

HIERACIUM aurantiacum.

Orange Hawkweed.

SYNGENESIA Polygamia-æqualis.

GEN. CHAR. *Recept.* nearly naked, dotted. *Cal.* imbricated, ovate. *Down* simple, sessile.

SPEC. CHAR. Leaves elliptical, entire. Stem almost naked, simple, hairy, bearing a corymbus of many flowers.

SYN. Hieracium aurantiacum. *Linn. Sp. Pl.* 1126. *Don. Herb. fasc.* 2. 41.

H. hortense latifolium, sive Pilosella major. *Ger. em.* 305.

MR. GEORGE DON has found this truly wild in several woods in Banffshire, as well as at Craigston in the neighbourhood of Turref, and it is quite a new acquisition to the British Flora. It is perennial, flowering in July, and has long been known in gardens, where it grows without trouble, still retaining, in various parts of England, the old name, recorded in Gerarde, of Grim the Collier, in allusion to the smutty effect of the black glandular hairs which invest the stalks and calyx.

The root creeps, and throws out many scions. Stem a foot high or more, erect, simple, round, very hairy, scarcely bearing one or two small leaves, and crowned with a corymbus of several handsome flowers, remarkable for their deep brownish orange colour. The calyx and flower-stalks are clothed, besides the above black hairs, with longer pale or tawny ones, like those on the leaves and stem. The leaves are nearly all radical, elliptical, broad, entire, hairy, especially the rib. Receptacle naked. Seed-down roughish.

Jane Lithog. Pall Mall. pub. by Jas. Sowerby, London.

VISCUM album.

Misseltoe.

DIOECIA Tetrandria.

GEN. CHAR. Male, *Cal.* none. *Petals* 4, dilated and cohering at their base, resembling a calyx. *Antheræ* sessile, attached to the petals.

Female, *Cal.* a slight border. *Pet.* 4, dilated at the base. *Style* none. *Berry* inferior, with 1 seed.

SPEC. CHAR. Leaves lanceolate, obtuse. Stem forked; with axillary heads of flowers.

SYN. Viscum album. *Linn. Sp. Pl.* 1451. *Sm. Fl. Brit.* 1074. *Huds.* 431. *With.* 203. *Hull.* 220. *Relh.* 388. *Sibth.* 63. *Abbot.* 214. *Mill. Illustr. t.* 87. *Woodv. Suppl. t.* 270.

Viscum. *Raii Syn.* 464.

FREQUENTLY to be observed on the branches of old apple-trees, hawthorns, lime-trees, oaks, &c., where it grows parasitically, forming large smooth pale-green tufts, most conspicuous in winter, when they assume a yellowish hue.

Stems divaricated, round, repeatedly forked. Leaves opposite, tongue-shaped, entire, rigid, smooth, permanent. Flowers in little axillary heads, male and female on separate plants, yellowish. Antheræ singularly punctate. Berry globose, white, semi-transparent, full of sweetish very viscid pulp, enclosing 1 seed. Of these berries bird-lime is made. The Misseltoe is celebrated in story as the sacred plant of the Druids, and the golden bough of Virgil, which was Æneas's passport to the infernal regions. From some relics of such antient superstitions it is used, along with holly boughs, to dress up churches and houses at Christmas. In polite life it is as obsolete as some better things, and left to the kitchen.

Corydalis
solida

FUMARIA solida.

Solid Bulbous Fumitory.

DIADELPHIA HEXANDRIA.

GEN. CHAR. *Cal.* 2-leaved. *Cor.* ringent. *Filaments* 2, membranaceous, each bearing 3 *antheræ*.

SPEC. CHAR. Stem mostly simple, erect. Leaves twice ternate. Bracteæ palmate, longer than the flower-stalk.

SYN. Fumaria solida. *Linn. Mss. in Sp. Pl. Sm. Fl. Brit.* 748. *Curt. Mag. t.* 231.
F. bulbosa β et γ. *Linn. Sp. Pl.* 983.
F. intermedia. *With.* 620. *t.* 29. *Hull.* 157.
Radix cava minor. *Ger. em.* 1091.

IN addition to the various parts of Westmoreland and Warwickshire, mentioned by Withering as truly wild stations of this plant, we can now name Wickham in Hampshire, as another place where it is found, on the authority of the Rev. T. Garnier, who favoured us with this specimen. In country gardens it is common, flowering in April.

Root perennial, bulbous, formed of several thick coats but not hollow. Stem solitary, a span high, erect, a little zigzag, leafy, smooth, almost always simple, bearing a lanceolate sheath at the bottom. Leaves 2 or 3, alternate, on stalks, smooth, twice ternate, cut. Spike solitary, terminal, simple, of several purple flowers pale and prominent at their base, which are compared, by old writers, to little birds. Bracteæ wedge-shaped, palmate, rather longer than the flower-stalks. Spur cylindrical, bluntish. Pod short, bursting at its base.

The root and bracteæ, as well as the scale at the base of the stem, sufficiently distinguish this species from the Hollow-rooted Fumitory, which has not been observed wild in Britain.—We find no specific distinction between the β and γ of Linnæus.

Pub. 1. May 1818 by Jas. Sowerby London

ANTHEMIS tinctoria.

Ox-eye Chamomile.

SYNGENESIA Polygamia-superflua.

GEN. CHAR. *Recept.* chaffy. *Seeds* scarcely bordered. *Cal.* hemisphærical, nearly equal. *Florets* of the radius more than 5, oblong.

SPEC. CHAR. Leaves doubly pinnatifid, serrated, downy underneath. Stem corymbose, erect.

SYN. Anthemis tinctoria. *Linn. Sp. Pl.* 1263. *Sm. Fl. Brit.* 907. *Huds.* 374. *With.* 740. *Hull.* 189. *Dicks. H. Sicc. fasc.* 17. 17. *Don. Herb. fasc.* 2. 42. *Fl. Dan. t.* 741.

Buphthalmum vulgare. *Raii Syn.* 183.

FOUND here and there in fields and stony places, but not frequently. In Ray's time it was observed in the county of Durham. Mr. Dickson has, more recently, gathered it in Essex, and Mr. G. Don near Forfar. In curious gardens it is preserved for its rarity.

We are not sure that the root is more than biennial: hence perhaps the plant is so little stationary as, by the acounts of those who have sought for it, seems to be the case. Stem bushy, corymbose, a foot or two in height, angular, cottony. Leaves doubly pinnatifid, deeply and sharply serrated, flat, downy beneath. Flowers on solitary terminal woolly stalks. Calyx hemisphærical, with jagged cottony scales. Florets of both disc and radius of a rich golden yellow, the latter broadish and elliptical. Scales as long as the tubular florets, yellow, awl-shaped, dilated at the base.

The flowers are said to afford a fine yellow dye.

Pubd. by Jas. Sowerby, London

BRYUM marginatum.

Thick-edged Thread-moss.

CRYPTOGAMIA Musci.

GEN. CHAR. *Caps.* ovate-oblong, smooth. *Fringe* double: *outer* of 16 teeth, broad at their base: *inner* a toothed membrane. *Flowers* terminal.

SPEC. CHAR. Stem simple. Leaves lanceolate, acute, finely toothed; thickened at the margin. Capsule ovate. Lid conical.

SYN. Bryum marginatum. *Dicks. Crypt. fasc.* 2. 9. *t.* 5. *f.* 1. *Sm. Fl. Brit.* 1362. *With.* 841. *Hull.* 267. *Turn. Musc. Hib.* 129.
Mnium crudum. *Lightf.* 712.

THE Rev. Dr. Burgess, so often quoted in the *Fl. Scotica*, first found this moss in woods and moist shady places in Dumfriesshire. From him I obtained corresponding specimens with those which he gave Mr. Lightfoot, who mentions the plant as *Mnium crudum*, very incautiously translating from Dillenius a description extremely foreign to the purpose. Mr. Dickson found the same moss in Scotland, and first named it properly. Our specimens were found, and determined, at Copgrove, Yorkshire, by our very obliging correspondent the Rev. James Dalton.

It is perennial, bearing fruit in April or May. The stems are simple, red, leafy, upright, about an inch high. Leaves elliptic-lanceolate, acute, wavy, finely toothed, especially in the upper part, remarkable for a thick cartilaginous margin, which, as well as the rib, is often red. Fruit-stalk solitary, erect, an inch long, flesh-coloured. Capsule pendulous, ovate. Lid conical at the base, with a taper point. Veil awl-shaped, brown or reddish, curved generally upwards as it grows.

Lond. Pubd. by J. Sowerby, Bookseller.

BRYUM cuspidatum.

Pointed-leaved Thyme Thread-moss.

CRYPTOGAMIA Musci.

GEN. CHAR. *Caps.* ovate-oblong, smooth. *Fringe* double: *outer* of 16 teeth, broad at their base: *inner* a toothed membrane. *Flowers* terminal.

SPEC. CHAR. Stem simple: when barren procumbent and somewhat branched. Leaves ovate, serrated. Capsule ovate. Lid hemisphærical.

SYN. Bryum cuspidatum. *Swartz. Musc. Suec.* 51. *Sm. Fl. Brit.* 1368. *Hull.* 266. *Sibth.* 291.
B. serpyllifolium γ. *Huds.* 492.
B. pendulum, foliis variis pellucidis, capsulis ovatis. *Dill. Musc.* 413. *t.* 53. *f.* 79.
Mnium cuspidatum. *Hedw. Sp. Musc.* 192. *t.* 45. *f.* 5—8. *With.* 804. *Relh.* 420. *Abbot.* 234.
M. serpyllifolium β. *Linn. Sp. Pl.* 1577.

THIS species is common in shady moist groves, and is not very unfrequently found with capsules in the spring. We received it from the Rev. Mr. Dalton.

Its stems are of two kinds. The barren ones are procumbent and creeping, 2 or 3 inches, or more, in length, sometimes branched, always leafy. The flowering stems are upright, simple, only an inch high. The leaves are of a fine green, transparent, very minutely reticulated, of an ovate form with a sharp point, a little waved, and sharply serrated. Nerve strong, palish. Fruit-stalk solitary, erect, rose-coloured, a little zigzag. Capsule pendulous, ovate, rather short and broad when ripe, at which period it becomes yellow or tawny, with a blush on one side, and a red mouth. Lid convex, blunt. Fringe yellowish.

Tab. 2. Mus. Published by Jas Sowerby, London.

BRYUM rostratum.

Long-beaked Thyme Thread-moss.

CRYPTOGAMIA Musci.

GEN. CHAR. *Caps.* ovate-oblong, smooth. *Fringe* double: *outer* of 16 teeth, broad at their base: *inner* a toothed membrane. *Flowers* terminal.

SPEC. CHAR. Stem simple. Leaves obovato-spatulate, minutely serrated. Capsule ovate. Lid awl-shaped.

SYN. Bryum rostratum. *Schrad. Spicil.* 72. *Sm. Fl. Brit.* 1369.

B. serpyllifolium β. *Huds.* 492.

B. punctatum, var. 2. *Hull.* 266.

B. pendulum, serpilli folio longiore pellucido, capsulis oblongis cuspidatis. *Dill. Musc.* 416. *t.* 53. *f.* 80. *Herb. Dill.*

Mnium punctatum, var. 2. *With.* 806.

FOR this, which is much rarer and less known than the last, we are also obliged to Mr. Dalton, who found it at Copgrove and Plumpton, Yorkshire, in April 1805. Dillenius had it from his friend Richardson, who botanized much in the western part of that county.

It has been confounded with *B. punctatum*, *t.* 1183, to which an error of Dillenius has contributed, who figures and describes the leaves as entire, whereas they are finely serrated, even in his own specimen, as well as ours and Dr. Schrader's.

The stems are about an inch long, the fertile ones erect. Leaves different from those of *B. punctatum* in being smaller, more spatulate, not evidently dotted or reticulated, their margins finely serrated, not entire. Fruit-stalks often several together, an inch and half long, reddish or orange-coloured, purple at the base. Capsule pendulous, nearly elliptical, greenish with a pale red mouth. Lid nearly as long as the capsule, recurved, tapering, yellow and somewhat obtuse when ripe.

Pub. 1 Mar. 1816 by J. Sowerby, London.

JUNGERMANNIA sinuata.

Jagged Jungermannia.

CRYPTOGAMIA Algæ.

GEN. CHAR. Male flowers sessile.

Female on a footstalk rising from a sheath. *Caps.* with 4 valves. *Seeds* attached to elastic filaments.

SPEC. CHAR. Stem none. Frond bipinnatifid, flat, sinuated, its extremities unequally two-lobed. Fruit-stalks shorter than the fronds.

SYN. Jungermannia sinuata. *Dicks. Crypt. fasc.* 2. 16. *With.* 869. *Hull.* 282.

Lichenastrum chamædryos multifidæ divisurâ. *Dill. Musc.* 511. *t.* 74. *f.* 44.

Ulva palustris, foliis ivæ moschatæ instar divisis. *Dill. in Raii Syn.* 64.

GATHERED by S. Hailstone, Esq., last April, at Elm Crag well, in Bellbank wood, near Bingley, Yorkshire, the very same place from whence Richardson originally sent it to Dillenius; but the latter never saw the fructification, and Hudson omitted the plant entirely, perhaps thinking it not distinct from *J. multifida*, *t.* 186.

The fronds are larger and flatter than in that species, as well as somewhat more compound, with unequally cloven extremities, while the fructification, on the other hand, is smaller, and more scattered. We find no other material distinction.

When moist, the plant has the fine aromatic scent which belongs to many of its genus, and of which we have spoken at *t.* 605. This our highly valued friend Mr. Wood, who found the *J. sinuata* near Leeds, has also remarked. See Withering.

1477

2391.

Ceridium cartilagineum?

FUCUS cartilagineus.

Cartilaginous Fucus.

CRYPTOGAMIA Musci.

GEN. CHAR. *Seeds* produced in clustered tubercles, which burst at their summits.

SPEC. CHAR. Frond cartilaginous, repeatedly pinnate, with a naked stalk: the subdivisions alternate, compressed, nearly linear; the ultimate ones short, obtuse, bearing the fruit.

SYN. Fucus cartilagineus. *Linn. Syst. Veg. ed.* 13. 816. *Turn. Syn.* 283. *Gunn. Norv. v.* 3. 108. *t.* 3. *f.* 5.
F. capensis. *Gmel. Fuci,* 157. *t.* 17. *f.* 1.
F. versicolor. *Gmel. Fuci,* 158. *t.* 17. *f.* 2.

WE rely on the accuracy of Mr. Turner and Dr. Withering in making this a British species, but it is not the *cartilagineus* of the last-mentinoned excellent writer, which was merely adopted from Hudson. He is said to have received the true plant, but a short time before his death, from Fresh-water bay in the Isle of Wight. We have been obliged to delineate a foreign specimen. It is one of those most frequently brought from abroad, and is often encrusted with a Madrepore. It is remarkably horny or cartilaginous, and cannot, by any cement that we know of, be fastened permanently to paper.

The root is small and fibrous. Fronds much and alternately branched, rather naked below, flat and fan-like above: their branches compressed; elongated and bare at the extremities. The ultimate lateral divisions are crowded, short and obtuse, each when fertile bearing an immersed red tubercle, at first terminal, but at length overtopped by a point or little branch. The colour is red, purple, greenish, brown, or tawny; so that Gmelin's name of *versicolor* is much happier than his confused citation of Linnæus under that species.

1478

239

Sphaerococcus cronopifolius

FUCUS coronopifolius.

Buck's-horn Fucus.

CRYPTOGAMIA Algæ.

GEN. CHAR. *Seeds* produced in clustered turbercles, which burst at their summits.

SPEC. CHAR. Frond cartilaginous, much branched: the branches much divided, obscurely veined; when barren dilated. Tubercles globular, on short, two-ranked, forked or pointed stalks.

SYN. Fucus coronopifolius. *Gooden. and Woodw. Tr. of Linn. Soc. v.* 3. 185. *Turn. Syn.* 287. *Hull.* 324.

F. cartilagineus. *Huds.* 586. *With. v.* 4. 119.

F. coronopi facie. *Dill. in Raii Syn.* 45. *Herb. Buddl.*

THIS is most certainly a British species, having been found several times on the south-west coasts of England, where our specimen was gathered. Hudson probably knew it, as he often visited that country, but referred it to the *F. cartilagineus* of Linnæus, a species which it much resembles, though they are indubitably distinct.

Root (according to Mr. Turner) a callous knob. Frond cartilaginous, of a deep transparent red, compressed, thickest in the middle, very much branched, crooked or irregularly zigzag; in the younger parts obscurely veined, as Mr. J. Sowerby first observed. The ultimate subdivisions when barren are dilated and palmate; when fertile setaceous, two-ranked, bearing, at their tips or sides, each a globular red tubercle of seeds.

Mr. Turner quotes the *Nereis Britannica*, *t.* 14, for this species; but we have not that work to refer to.

1479

2.452.

Griffithsiæ equisetifolia?

July 1. 1802. Published, By Jas. Sowerby, London.

CONFERVA equisetifolia.

Red Sponge Conferva.

CRYPTOGAMIA Algæ.

GEN. CHAR. *Seeds* produced in round, solitary, closed tubercles, projecting from the frond, but united with it.

SPEC. CHAR. Red, branched, cylindrical. The branches clothed with whorled, imbricated, forked, jointed filaments.

SYN. Conferva equisetifolia. *Lightf.* 984. *With. v.* 4. 133. *Hull.* 332.

C. imbricata. *Huds.* 603.

Muscus marinus hirsutus, flagellis longioribus, rariùs divisis, ruber. *Moris. Hist. v.* 3. 650. *sect.* 15. *t.* 9. *f.* 7.

MR. WOODWARD and Mr. Turner have both observed this Conferva on the beach at Yarmouth. The latter assures us it is often found there. Lightfoot speaks of it as rather rare in Britain. We are not sure that his name, *equisetifolia*, which has been generally adopted, is preferable to the rejected one of Hudson.

The whole plant is 3 or 4 inches long, much and alternately branched, of a bright red when young, but in the older parts turning purple or brown. All the branches are cylindrical, and uniformly clothed with densely imbricated whorled filaments, which when magnified prove to be forked, and curiously jointed; the joints are contracted, and redder than the other parts. No fructification has yet been detected.

Chenopodium polyspermum.

CHENOPODIUM polyspermum.

Round-leaved Goosefoot.

PENTANDRIA Digynia.

GEN. CHAR. *Cal.* 5-cleft, inferior. *Cor.* none. *Seed* 1, lenticular, invested with the closed five-sided calyx.

SPEC. CHAR. Leaves ovate, obtuse, entire. Stem prostrate. Clusters cymose, divaricated, leafless.

SYN. Chenopodium polyspermum. *Linn. Sp. Pl.* 321. *Sm. Fl. Brit.* 278. *Huds.* 107.
C. Betæ folio. *Raii Syn.* 157.
Allseed Blite. *Pet. H. Brit. t.* 7. *f.* 10.

OUR specimens of this *Chenopodium* were gathered on waste ground in Cornwall in the latter part of summer. It is certainly what Linnæus intended by the above denomination, as his definition and specimen prove; but another plant has been confounded with this, which we have now for the first time distinguished from it, see *t.* 1481.

The root of *C. polyspermum* is annual and branched. Stems all prostrate and widely spreading, mostly simple, roundish, striated, leafy from the base to the extremity. Leaves alternate, on footstalks, ovate or roundish, generally very obtuse, quite entire and undivided, though sometimes a little waved or irregular in their outline; their colour is a deep grass green. Clusters of flowers very large, axillary, sessile, cymose, spreading, repeatedly subdivided, without any small leaves at their divarications. Flowers green. Seed black, kidney-shaped, minutely dotted. Our figure shows it magnified, as well as a flower.

1.181
3.53.

Chenopodium acutifolium

CHENOPODIUM acutifolium.

Sharp Entire-leaved Goosefoot.

PENTANDRIA Digynia.

GEN. CHAR. *Cal.* 5-cleft, inferior. *Cor.* none. *Seed* 1, lenticular, invested with the closed five-sided calyx.

SPEC. CHAR. Leaves ovate, acute, entire. Stem erect. Clusters somewhat cymose, elongated, leafless.

SYN. Chenopodium polyspermum. *Curt. Lond. fasc.* 2. *t.* 17. *With.* 273. *Hull.* 57. *Relh.* 102. *Sibth.* 89. Atriplex sylvestris, sive Polyspermon. *Ger. em.* 325.

THIS is what Mr. Curtis, in general so intelligent and correct with regard to the species of this difficult genus, has published as *C. polyspermum;* but finding the Linnæan specific character did not well apply to it, and yet never dreaming of there being more than one species in question, he very properly gave it a character of his own. This plant occurs in fields and waste ground about Battersea, Lambeth, and, as it should seem, many other parts of England. It is annual, and flowers in July and August.

The stem is nearly upright, much-branched throughout, leafy, square. Leaves ovate, acute, entire, rather paler than in the true *polyspermum*. Clusters numerous, axillary, the larger ones imperfectly cymose and spreading; the rest rather spiked and elongated; all destitute of small leaves. Seed orbicular, blackish, scarcely dotted.

We trust we have distributed the synonyms of these two species justly. It appears from Mr. Davall's herbarium that they both grow in Switzerland, and he seems to have suspected their being distinct.

Juncus trifidus.

JUNCUS trifidus.

Three-leaved Rush.

HEXANDRIA Monogynia.

GEN. CHAR. *Cal.* of 6 leaves, permanent. *Cor.* none. *Caps.* superior, of 3 valves, with 1 or 3 cells. *Seeds* several. *Stigmas* 3.

SPEC. CHAR. Stem naked, terminated by three leaves and about as many flowers.

SYN. Juncus trifidus. *Linn. Sp. Pl.* 465. *Sm. Fl. Brit.* 378. *Huds.* 149. *With.* 345. *Hull.* 75. *Lightf.* 183. *t.* 9. *f.* 1. *Dicks. H. Sicc. fasc.* 1. 6. *Fl. Dan. t.* 107. *Bauh. Hist. v.* 2. 521.

J. acumine reflexo, trifidus. *Bauh. Prodr.* 22. *Theatr.* 185.

A NATIVE of alpine bogs in Scotland, which Lightfoot says he gathered on several mountains of that country. It is perennial, and flowers in July.

Root creeping, tufted, black, with many long fibres. Stems 4 or 5 inches high, erect, straight, round, smooth, unbranched, sheathed at the base with many scales and a few shortish awl-shaped leaves. At the top of the stem grow about 3 similar upright leaves, with sheathing bases, in whose bosoms stand from 1 to 3, sometimes more, dark-brown sessile flowers. We find a solitary flower most common in British specimens, and even in exotic ones from elevated situations, in which case it is the *J. monanthos* of Jacquin; but when the plant is flourishing, 3 are certainly its natural number, and the leaves are almost always 3. The capsule is elliptical, sharply pointed, with 3 cells and many seeds.

Bot. Mag. Published by Jas Sowerby London

ARENARIA trinervis.

Plantain-leaved Sandwort.

DECANDRIA Trigynia.

GEN. CHAR. *Cal.* 5-leaved, spreading. *Petals* 5, undivided. Capsule superior, of 1 cell, with many seeds.

SPEC. CHAR. Leaves ovate, acute, stalked, ribbed. Keel of the calyx-leaves rough, with three obscure ribs.

SYN. Arenaria trinervis. *Linn. Sp. Pl.* 605. *Sm. Fl. Brit.* 478. *Huds.* 191. *With.* 421. *Hull.* 95. *Relh.* 171. *Sibth.* 141. *Abbot.* 97. *Curt. Lond. fasc.* 4. *t.* 31.

Alsine plantaginis folio. *Raii Syn.* 349.

INCURIOUS observers may pass by this little plant as a variety of the common *Stellaria media*, to which it bears some resemblance in general aspect; but its paler hue, and uniform downiness, readily distinguish it. When examined more carefully, the undivided petals and the 3-ribbed leaves mark it decisively.

It grows in shady bushy places, for the most part on a rather moist but not boggy soil. It is also partial to calcareous ground, and flowers in May and June.

Root annual. Stems upright, but weak, and trusting to other plants for support, much branched, spreading, round, downy all over. Leaves on footstalks, opposite, ovate, acute, entire, ciliated, marked with 3, rarely 5, evident ribs. Flowers small, white, on longish solitary stalks, each proceeding from a fork of the stem. Calyx longer than the petals, acute, each leaf with 3 obsolete ribs, and downy at the back. Capsule opening with 6 revolute teeth. Seeds black and smooth.

1484
779.

Anemone ranunculoides.

ANEMONE ranunculoides.

Yellow Wood Anemone.

POLYANDRIA Polygynia.

GEN. CHAR. *Cal.* none. *Petals.* 5—9, or more. *Seeds* several.

SPEC. CHAR. Seeds without tails. Stalk with one or two flowers, furnished with a three-leaved, nearly sessile, leafy involucrum. Petals five, elliptical.

SYN. Anemone ranunculoides. *Linn. Sp. Pl.* 762. *Sm. Fl. Brit.* 582. *Huds.* 237. *With.* 499. *Hull.* 120. *Fl. Dan. t.* 140.

A. nemorum lutea. *Ger. em.* 383.

Ranunculi quarta species lutea. *Fuchs. Hist.* 162.

NO wonder that the old botanists scarcely knew whether to refer this plant to the genus of *Ranunculus* or to that of *Anemone*. The sound principles of the science however, founded on the fructification, and generally confirmed by the habit, rightly understood, as in this instance, readily decide such questions.

Mr. Hudson first added this to the list of English plants, having observed it in Hertfordshire and Kent, apparently wild. We have no reason to doubt the accuracy of his observation, but we venture to remark that the plant easily becomes naturalized in old undisturbed gardens or plantations. It is perennial, and flowers in the early spring. Ours is a garden specimen.

In habit it is next akin to *A. nemorosa*, with which it agrees in the root, but the floral leaves are more sessile. There are often 2 flowers together. The petals are always yellow, and their natural number appears to be 5, rarely 6. The stem is smooth, the flower-stalk hairy.

1485

900.

Capsella Bursa-Pastoris.

Augt 1 1806. Published by Jas Sowerby, London.

THLASPI Bursa-Pastoris.

Common Shepherd's Purse.

TETRADYNAMIA Siliculosa.

GEN. CHAR. *Pouch* notched, inversely heart-shaped, with several seeds: valves boat-like, their keels forming the border: partition contrary to the valves.

SPEC. CHAR. Hairy. Pouch inversely heart-shaped, somewhat triangular. Radical leaves pinnatifid.

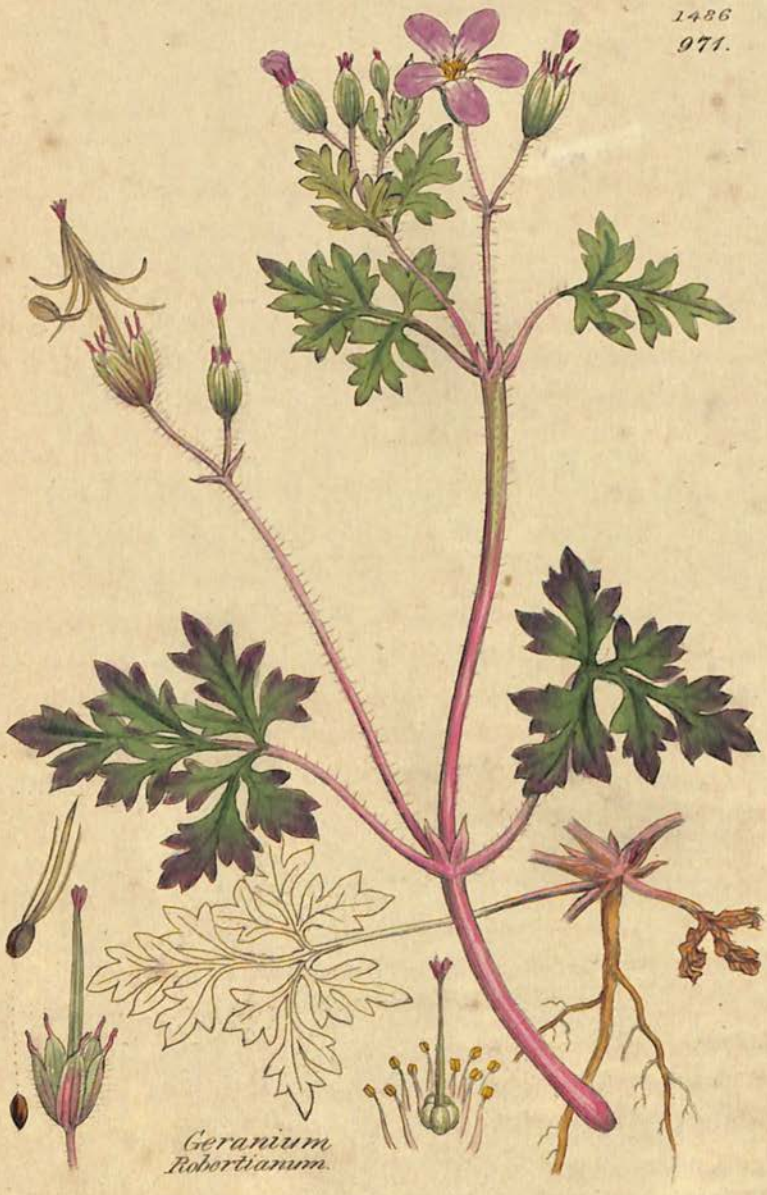
SYN. Thlaspi Bursa-Pastoris. *Linn. Sp. Pl.* 903. *Sm. Fl. Brit.* 687. *Huds.* 283. *With.* 571. *Hull.* 146. *Relh.* 253. *Sibth.* 200. *Abbot.* 141. *Curt. Lond. fasc.* 1. *t.* 50.

Bursa Pastoris. *Raii Syn.* 306.

ONE of the most common of weeds, and, like the generality of such, varying extremely in size and luxuriance, and consequently in the form of its leaves. It is annual, and flowers from the beginning of spring till the end of autumn, ripening copiously its triangular pods or pouches, which gave rise to its name, and which at once distinguish it from all other British plants.

Root small, tapering, branched, exhaling a peculiar smoke-like scent when pulled out of the ground. Whole herb rough with prominent hairs. Stem various in height, generally branched, leafy, each branch terminating in a corymbus of many small white flowers, often tinged with purplish brown. Radical leaves numerous, spreading, pinnatifid and sharply toothed, except in very dry places; stem-leaves oblong, sessile, clasping the stem with their arrow-shaped base. Pouch smooth, with many pendent seeds in each cell. Its margin is scarcely dilated. The style which crowns the pouch is very short.

Small birds eat the seeds and young flowers.



Geranium
Robertianum.

Aug.t 1. 1806. Published by Jas Sowerby, London.

GERANIUM robertianum.

Stinking Crane's-bill.

MONADELPHIA Decandria.

GEN. CHAR. *Cal.* 5-leaved. *Pet.* 5, regular. *Nectary* 5 glands. *Fruit* beaked, separating into 5 capsules, each tipped with a long recurved naked awn.

SPEC. CHAR. Stalks two-flowered. Leaves somewhat pedate, pinnatifid, five-angled. Calyx with ten angles. Capsules rugged.

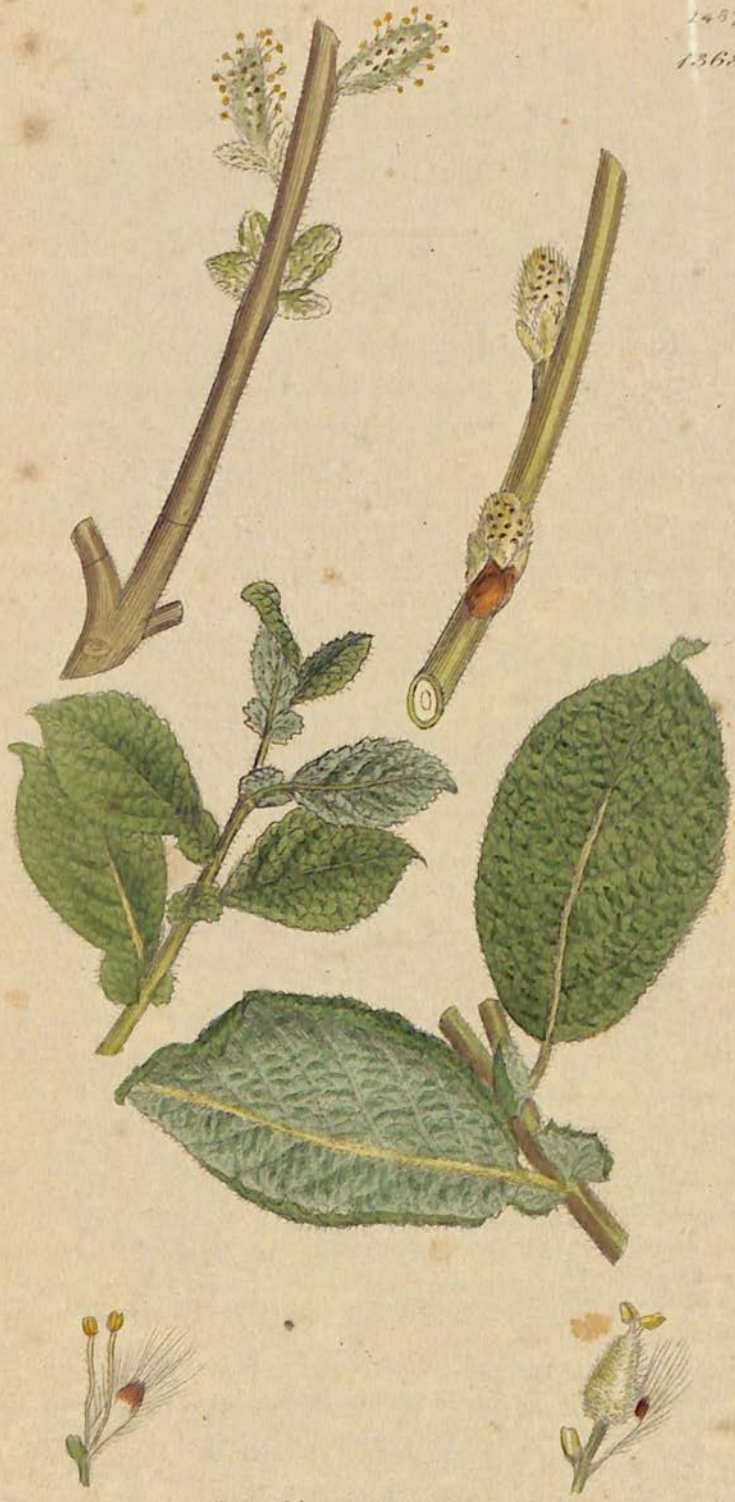
SYN. Geranium robertianum. *Linn. Sp. Pl.* 955. *Sm. Fl. Brit.* 732. *Huds.* 305. *With.* 608. *Hull.* 153. *Relh.* 267. *Sibth.* 215. *Abbot.* 149. *Curt. Lond. fasc.* 1. *t.* 52. *Raii Syn.* 358. *Ger. em.* 939.

β. G. lucidum saxatile, foliis Geranii robertiani. *Raii Syn.* 358.

VERY common in waste ground, on walls, banks, and even in groves and shady places. In the latter its bright-red flowers are seen, throughout the summer and autumn, peeping through the umbrageous foliage of other plants. In exposed spots the plant is more conspicuous for the bright shining red assumed by its stems and lower leaves (as in *G. lucidum*, *t.* 75); but in such places its duration is much shorter, and its size much smaller, than in the shade.

The root is fibrous and annual. Stems spreading, brittle, round, red. Leaves on long stalks, ternate, cut in a pedate manner, their outline five-angled, their surface shining, more or less hairy. Flowers on long cloven axillary and terminal stalks. Calyx hairy, with 10 angles. Petals undivided, purple, with a palmate white mark at the base. Stamina smooth, all fertile. Capsules oblong, rugged, simply keeled. Seeds quite smooth.

The whole herb has a strong and peculiar scent. In maritime situations the leaves are more fleshy and shining, and the petals often white.



Salix aurita.

Aug.st 1. 1808. Published by Jas. Sowerby. London.

SALIX aurita.

Round-eared, or Trailing Sallow.

DIOECIA Diandria.

GEN. CHAR. Male, *Cal.* the scales of a catkin. *Cor.* none. *Nectary* a gland at the base of the stamina. *Stam.* 1—5. Female, *Cal.* and *Nect.* like the male. *Cor.* none. *Stigmas* 2. *Caps.* superior, of 1 cell and 2 valves. *Seeds* downy.

SPEC. CHAR. Leaves somewhat serrated, obovate, obtuse, with a small hooked point: hairy and reticulated with veins on both sides. Stipulas various.

SYN. Salix aurita. *Linn. Sp. Pl.* 1446. *Fl. Lapp. ed.* 2. 303. *t.* 8. *f.* y. *Sm. Fl. Brit.* 1064 *With.* 50. *Hull.* 218. *Sibth.* 17. *Abbot.* 212. *Hoffm. Sal. t.* 22. *f.* 1.

S. caprea δ. *Huds.* 430.

S. folio rotundo minore. *Dill. in Raii Syn.* 450.

β. S. caprea pumila, folio subrotundo subtùs incano. *Dill. in Raii Syn.* 450.

THIS, the smallest of the tribe called Sallows, is not so general a species as *S. aquatica*, *t.* 1437, and yet is found abundantly in rather moist upland woods, and more especially in the thickets or hedges of mountainous countries. In Shropshire and Wales it abounds, and is covered with its little catkins in April or May, while the leaves are just budding.

It varies in height, but is generally in all its parts about half the size of the Water Sallow. The branches shoot horizontally among other bushes to a great extent, whence the Norfolk name of Trailing Sallow. (*Mr. Crowe.*) The leaves vary much in size, but are known by their great ruggedness, their obovate, often obtuse, form, and their hooked point. They are very hairy. The stipulas are roundish, very variable also in size. Catkins on lateral branches, scarcely half so large as those of *S. aquatica*, but like them in the structure of their parts. Male flowers lemon-coloured. Capsules downy, on longish stalks.

Salix caprea.

Aug.t 1.1815 Published by Jas. Sowerby, London.

SALIX caprea.

Great Round-leaved Sallow.

DIOECIA Diandria.

GEN. CHAR. Male, *Cal.* the scales of a catkin. *Cor.* none. *Nectary* a gland at the base of the stamina. *Stam.* 1—5. Female, *Cal.* and *Nect.* like the male. *Cor.* none. *Stigmas* 2. *Caps.* superior, of 1 cell and 2 valves. *Seeds* downy.

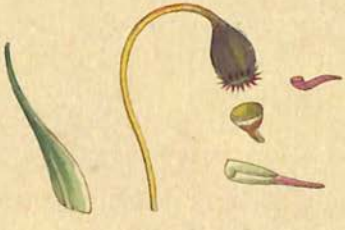
SPEC. CHAR. Leaves ovate, pointed, serrated, waved; downy beneath. Stipulas somewhat crescent-shaped. Capsules swelling.

SYN. Salix caprea. *Sm. Fl. Brit.* 1067. *Linn. Sp. Pl.* 1448, *α*. *Huds.* 429, *γ*. *With.* 53. *Hull.* 219. *Relh.* 386. *Sibth.* 17. *Abbot.* 212. *Hoffm. Sal. v.* 1. 25. *t.* 3. *f.* 1, 2. *t.* 21. *f.* a, b, c.
S. latifolia rotunda. *Raii Syn.* 449.

COMMON in hedges and thickets, but it prefers such situations as are rather dry than wet. Its copious yellow blossoms enliven the landscape in early spring, especially if they happen to have a back ground of gloomy firs. When they are fallen, the fresh shoots of the firs, as Linnæus says, "illuminate the woods" in their turn. The wood and branches of the Sallow are particularly useful for making hurdles. Its bark is bitter and astringent, and has lately been much recommended for the same purposes as the Peruvian *Cinchona*.

This is much larger in all its parts than *S. aquatica*, and grows to the size of a moderate tree. It is readily known by its large broad roundish leaves, which are waved at their edges, and clothed with a dense white cottony down beneath. The catkins are thicker and blunter than those of any other British species, except perhaps *oleifolia*. Their scales are brown and very hairy. Stamens yellow. Germen ovate, downy, on a long stalk. Capsule swelling at the base. The scales of the flower-buds are most beautifully silvery when they first expand.

1489
1740.



Weissia recurvata.

Aug.st 1. 1803. Published by Jas. Sowerby, London.

GRIMMIA recurvata.

Recurved Grimmia.

CRYPTOGAMIA Musci.

GEN. CHAR. *Fringe* simple, of 16 teeth, broadest at their base. *Flowers* terminal. *Veil* cylindrical.

SPEC. CHAR. Leaves bristle-shaped. Capsule pear-shaped, smooth, with a spreading mouth. Fruit-stalk bowed.

SYN. Grimmia recurvata. *Hedw. Sp. Musc.* 75. *Crypt. v.* 1. 102. *t.* 38. *Sm. Fl. Brit.* 1183. *Turn. Musc. Hib.* 24.

Bryum recurvatum. *Dicks. Crypt. fasc.* 2. 7. *With.* 838.

B. setaceum. *Wulf. in Jacq. Misc. v.* 2. 96. *t.* 12. *f.* 1. *Hull.* 265.

OUR specimens were gathered on a coarse kind of sandstone at Hackfall, Yorkshire, by our excellent friend the Rev. James Dalton. Others have been sent us by Mr. G. Don from Salisbury craigs near Edinburgh.

This is one of the smallest of Mosses. It is an annual, and bears fruit early in the summer. The root is fibrous, very minute. Stem short, simple and leafy. Leaves numerous, of a light bright green, not glaucous, very slender, tapering, entire, spreading. Fruit-stalk terminal, solitary, capillary, erect when young, but as the fruit advances towards maturity it is curved into a bow, and the capsule, which is pear-shaped, smooth, and of an olive brown, is bent downward, and becomes at length dilated and bell-shaped. Lid tapering, incurved, half as long as the capsule. Fringe short, red, spreading.

1490

17.31.

Weisia
Starkeana.

Augt. 1805. Published by Jas. Sowerby, London.

GRIMMIA Starkeana.

Minute Oval-leaved Grimmia.

CRYPTOGAMIA Musci.

GEN. CHAR. "*Fringe* simple, of 16 teeth, broadest at their base. *Flowers* terminal. *Veil* cylindrical.

SPEC. CHAR. Stem simple. Leaves ovate, slightly bearded. Capsule elliptical, upright. Lid conical, obtuse.

SYN. Grimmia Starkeana. *Roth. Germ. v.* 3. 146. *Sm. Fl. Brit.* 1186.

Weisia Starkeana. *Hedw. Sp. Musc.* 65. *Crypt. v.* 3. 83. *t.* 34. B.

B. minutum. *Dicks. Crypt. fasc.* 4. 7. *t.* 10. *f.* 17.

MR. DICKSON first observed this little moss in Britain, and to him we are obliged for specimens, which agree exactly with those sent from Germany. For those in the plate annexed we are obliged to Mr. W. Borrer, who found them near Lewes in Sussex. Mr. Turner is now convinced that the *G. Starkeana* of his *Muscologia Hibernica* is a new and distinct species, being more than twice the size of our plant, of a blacker hue, and furnished with a branched stem. He proposes to call it *atro-virens*.

The species before us is very minute, having a fibrous, probably perennial, root, and a short undivided leafy stem. Leaves crowded, spreading, ovate, entire, of a pale brownish green, furnished with a strong rib, which is extended into a small short point, often scarcely evident. Fruit-stalk solitary, erect, straight, short, brownish. Capsule erect, elliptical, smooth, brown. Lid conical, short. Teeth almost linear. The lower leaves turn to a pale brown, and are permanent. The stem grows after flowering, but does not branch.

1491
1695

Dicranum flexuosum

DICRANUM flexuosum.

Zigzag Fork-moss.

CRYPTOGAMIA Musci.

GEN. CHAR. *Caps.* oblong. *Fringe* of 16 flat, cloven teeth, a little inflexed.

SPEC. CHAR. Stem mostly branched. Leaves bristle-shaped, straightish. Capsule somewhat ovate, furrowed. Stalk zigzag. Veil fringed.

SYN. Dicranum flexuosum. *Hedw. Sp. Musc.* 145. *t.* 38. *f.* 1—6. *Sm. Fl. Brit.* 1229. *Turn. Musc. Hib.* 74.

Bryum flexuosum. *Linn. Sp. Pl.* 1583. *Huds.* 484. *With.* 834. *Hull.* 264. *Lightf.* 725. *Dicks. H. Sicc. fasc.* 9. 19.

B. pilosum molle, setis intortis. *Dill. Musc.* 373. *t.* 47. *f.* 33.

B. trichoides, capitulis erectis, pediculis intortis tenuibus virentibus. *Raii Syn.* 97.

SENT by the Rev. Mr. Dalton from the high moors of Yorkshire, a kind of situation in which it is not uncommon either in Scotland, Wales, Ireland, or the North of England, perfecting its fruit in April and May.

The stems form dense tufts and are leafy, mostly divided, extremely various in height from half an inch to 2 or 3 inches, and in bogs even much more. In the latter case we agree with Mr. Turner in thinking it the *Sphagnum alpinum* of Linnæus* (to which Dillenius attributed fruit that did not belong to it), and in the former it is Mr. Dickson's *Bryum fragile*.

The leaves are imbricated, awl-shaped, straight, of a pale shining green, concave, without a rib, taper-pointed; the point becoming white and pellucid in the bog variety. Stalks variously bent and twisted. Capsule brownish, ovate, erect and neatly furrowed when ripe. Lid tapering. Veil elegantly fringed.

* *Turn. t.* 5. *f.* 2.

1492

1511.

Hypnum complanatum.

Sept 1. 1806. Published by Jas Sowerby, London.

HYPNUM complanatum.

Flat Feather-moss.

CRYPTOGAMIA Musci.

GEN. CHAR. *Caps.* ovate-oblong, from a lateral scaly sheath. *Outer-fringe* of 16 teeth, dilated at the base: *inner* a variously-toothed membrane. *Veil* smooth.

SPEC. CHAR. Stem pinnated. Leaves in two ranks, obtuse with a little point, compressed, without a nerve. Lid beaked, oblique. Sheath elongated.

SYN. Hypnum complanatum. *Linn. Sp. Pl.* 1588. *Sm. Fl. Brit.* 1286. *Huds.* 495. *With.* 844. *Hull.* 268. *Relh.* 431. *Abbot.* 244. *Lightf.* 742. *Turn. Musc. Hib.* 144.

H. pennatum compressum et splendens, capsulis ovatis. *Dill. Mus.* 268. *t.* 34 *f.* 7.

H. repens filicifolium ramosum, ramulis appressis et magis complanatis. *Raii Syn.* 87.

Leskea complanata. *Hedw. Sp. Musc.* 231. *Sibth.* 302.

ABUNDANT in woods about the roots and stems of trees. In the former situation it often forms dense tufts; in the latter it is pressed close to the bark. In either case the whole plant is singularly flat, as if it had been placed between the leaves of a book. The fructification is produced in March or April, but by no means generally.

Each plant is about 4, 5, or more inches in length, doubly pinnated, the branches two-ranked as well as the leaves, which are closely imbricated, compressed, ovate-oblong, obtuse, entire, without vein or nerve, of a pale shining green, membranous, tipped with a small point. The young points of the branches are often long and taper, bearing a few, more distant, leaves. Sheaths about a third of the length of the fruit-stalks, which are slender, red upwards. Capsule erect, elliptical, short. Lid obliquely beaked.

HYPNUM trichomanoides

Blunt Fern-like Feather-moss.

CRYPTOGAMIA Musci.

GEN. CHAR. *Caps.* ovate-oblong, from a lateral scaly sheath. *Outer fringe* of 16 teeth, dilated at the base: *inner* a variously-toothed membrane. *Veil* smooth.

SPEC. CHAR. Stem imperfectly pinnated. Branches all obtuse. Leaves in two ranks, scimitar-shaped, pointless, without a nerve. Lid awl-shaped. Sheath short.

SYN. Hypnum trichomanoides. *Schreb. Lips.* 88. *Sm. Fl. Brit.* 1287. *With.* 844. *Hull.* 268. *Relh.* 431. *Turn. Musc. Hib.* 145.

H. complanatum β. *Huds.* 495.

H. pennatum trichomanoides splendens ramosum. *Dill. Musc.* 269. *t.* 34. *f.* 8.

H. erectum filicifolium ramosum, pinnulis obtusis. *Dill. in Raii Syn.* 87.

Leskea trichomanoides. *Hedw. Sp. Musc.* 231. *Sibth.* 303.

ON the trunks of trees or on the ground, bearing capsules in February or March. Our specimens were gathered at Studley near Rippon, by Mr. W. Brunton, who justly remarks that the much shorter sheath of the fruit-stalk serves well to distinguish this moss from the preceding, of which Hudson made it a variety. The stems moreover are much shorter, and less regularly pinnated. Branches not running out into a taper point. Leaves slightly recurved into the form of a scimitar, a little convex, with scarcely any point. They have been thought finely serrated, but we believe it to be an optical deception occasioned by their reticulated texture. The lid of the capsule is longer and slenderer than in *H. complanatum*. The inner fringe is, as in that, simply and regularly toothed, which makes the character of Hedwig's *Leskea*.

Published by T.C. Newby, London.

HYPNUM proliferum.

Opaque Proliferous Feather-moss.

CRYPTOGAMIA Musci.

GEN. CHAR. *Caps.* ovate-oblong, from a lateral scaly sheath. *Outer fringe* of 16 teeth, dilated at the base: *inner* a variously-tooth membrane. *Veil smooth.*

SPEC. CHAR. Stem triply pinnate. Leaves heart-shaped, acute, close-pressed, very minutely serrated, opaque, with one or three nerves. Lid awl-shaped.

SYN. Hypnum proliferum. *Linn. Sp. Pl.* 1590. *Sm. Fl. Brit.* 1297. *Huds.* 499. *With.* 853. *Hull.* 270. *Relh.* 434. *Sibth.* 294. *Abbot.* 248. *Lightf.* 750. *Curt. Lond. fasc.* 1. *t.* 72. *Dicks. H. Sicc. fasc.* 14. 21. *Turn. Musc. Hib.* 157,

H tamariscinum. *Hewd. Sp. Musc.* 261. *t.* 67. *f.* 1—5.

H. filicinum, tamarisci foliis minoribus non splendentibus. *Dill. Musc.* 273. *t.* 35. *f.* 14.

H. repens filicinum minus luteo-virens. *Raii Syn.* 86.

ONE of the most handsome Europæan mosses, very common in woods, and sometimes in exposed situations, clothing the ground or the trunks of old trees with a rich entangled tapestry. The capsules are very rarely found. They are produced in the winter or early spring. Our specimens were gathered at Studley by Mr. W. Brunton. In them the fruit-stalks are all solitary, but we have generally seen 2 or 3 from each sheath.

The stem is elegantly proliferous from its uppermost side; the branches triply pinnate, clothed with rusty down and with imbricated, close-pressed leaves, which are heart-shaped, acute, of a fine opaque (not shining) green, often yellowish; the larger furnished with 3 nerves, the rest with 1; the edges apparently entire, but Mr. Sowerby, with a high magnifier, has found them serrulated as in our plate. Sheaths awl-shaped, shining, of several lanceolate, finely serrated leaves. Fruit-stalks crimson. Capsule incurved, cylindrical, red-brown. Lid awl-shaped, curved, thick at the base.

1495
1549.

Hypnum recognitum.

Sept.r 1. 1818. Published by Jas Sowerby, London.

HYPNUM recognitum.

Lesser Opaque Feather-moss.

CRYPTOGAMIA Musci.

GEN. CHAR. *Caps.* ovate-oblong, from a lateral scaly sheath. *Outer fringe* of 16 teeth, dilated at the base: *inner* a variously-toothed membrane. *Veil* smooth.

SPEC. CHAR. Stem doubly pinnate. Leaves heart-shaped, acute, close-pressed, three-nerved, opaque, finely serrated. Lid conical, acute.

SYN. Hypnum recognitum. *Hedw. Sp. Musc.* 261. *Crypt. v.* 4. 92. *t.* 35. *Sm. Fl. Brit.* 1298. *Roth. Germ. v.* 3. 279.

H. delicatulum. *Willden. Berol.* 321.

H. parietinum β. *Pollich. v.* 3. 135.

THIS I gathered in the neighbourhood of Matlock bath, Derbyshire, in 1790; of the precise spot I am not certain. The plant has hitherto either not been observed in any other part of Britain, or has been confounded with *H. proliferum*, from which it is very distinct. The stem and branches are not half so large as in that species, nor do they grow in the same prdliferous manner. The latter are only doubly pinnated. The leaves are finely serrated, and have all, for the most part, 3 nerves, of which the middle one is very conspicuous. The leaves of the sheaths are long and taper, very inconspicuously serrated towards their points. The fruit-stalks are always solitary, reddish, shorter than those of the last-mentioned, but longer in proportion to the branches. Capsule incurved, cylindrical, brown. Lid short and conical, with a minute point, a little curved. By the shape of the lid these 2 species are essentially distinguished.

May 1, 1818. Published by Jas. Sowerby, London

HYPNUM alpinum.

Alpine-torrent Feather-moss.

CRYPTOGAMIA Musci.

GEN. CHAR. *Caps.* ovate-oblong, from a lateral scaly sheath. *Outer fringe* of 16 teeth, dilated at the base: *inner* a variously-toothed membrane. *Veil* smooth.

SPEC. CHAR. Stem creeping. Branches clustered. Leaves ovate, concave, pointed, with one rib reaching to the middle; the upper ones curved.

SYN. Hypnum alpinum. *Sm. Fl. Brit.* 1330. *Turn. Musc. Hib.* 192.

H. flagellare. *Hedw. Musc.* 282. *t.* 73. *f.* 1—3; the synonyms all wrong.

SENT by Mr. Winch from the north of England. Mr. Turner had previously observed it on rocks in the alpine regions of Snowdon, washed by the torrent of Llyn Fynnon Lâs, and had also received it from Ireland. Mr. Dickson found it in the alpine rivulets of Scotland, intermixed with his real *H. flagellare*; and the latter not being in fructification, he, as it seems, described the capsules of this as belonging to it. Those most deeply versed in botany know how easily such mistakes happen. Some of his specimens therefore of this moss only reached Hedwig, who figures them as *H flagellare* of Dickson, which is a different plant, whose fructification has not yet been observed. See *Fl. Brit.* 1322.

H. alpinum has shortish creeping stems, which throw up clusters of short, thickish, upright, leafy branches. Leaves dull green, ovate, sharply pointed, concave, entire, smooth and even, with a rib which vanishes about the middle of the leaf. The upper leaves are of a light shining green, and a little curved to one side, but scarcely enough to justify the placing this plant in the section *foliis circinalibus*, where it not for its affinities. Sheaths loosely spreading. Stalks red. Capsule inclining, ovate, short. Lid conical, very acute.

1497.

1612.

Funaria Muhlenbergii

Engd. & Illus. by S. Sowerby, Londn.

FUNARIA Muhlenbergii.

Hair-pointed Cord-moss.

CRYPTOGAMIA Musci.

GEN. CHAR. *Caps.* obovate. *Outer fringe* of 16 oblique teeth, cohering at their tips: *inner* of 16 flat teeth. *Flowers* terminal. *Veil* beaked.

SPEC. CHAR. Leaves concave, finely serrated, hair-pointed. Capsule oblique. Veil cylindrical. Lid slightly conical.

SYN. Funaria Muhlenbergii. *Turn. in Annals of Botany, v.* 2. 198.

FOR this new and highly interesting addition to the Flora of Britain we are obliged to the Rev. Mr. Dalton of Copgrove, who found it in that neighbourhood. It was first discovered near Lancaster in Pennsylvania by the Rev. Dr. Muhlenberg, and is mentioned by Mr. Turner in his work on Irish Mosses, *p.* 106, as well as in Dr. Sims, and Mr. Konig's *Annals of Botany*. It makes only the third species hitherto known of the very distinct and natural genus to which it belongs, one of which species is common in Europe, and is figured in our 5th volume, *t.* 342, and the remaining one, from Hispaniola, is in the Linnæan herbarium.

The plants of the present species grow in a scattered manner, and at first sight greatly resemble the *Gymnostomum pyriforme*, *t.* 413, but are of a darker green. The stem is short and simple. Root brown, long, probably annual. Leaves scarcely at all spreading, concave, ovate, finely serrated, acute, with a strong rib terminating in a hair-like point; their substance more reticulated than in *F. hygrometrica*. Stalk terminal, not an inch long, of a fine red, somewhat curved. Capsule nearly upright, pear-shaped, oblique, smooth, green. Lid of a short conical form, red at the edge. Outer fringe red; inner pale green. Veil bent obliquely, inflated at the base, its beak cylindrical, not quadrangular.

1786.

Sphagnum squarrosum.

Septr. 1806. Published by J.E. Smith, London.

SPHAGNUM squarrosum.

Prominent-leaved Bog-moss.

CRYPTOGAMIA Musci.

GEN. CHAR. *Caps.* without a fringe. *Veil* cut round, its base remaining on the base of the capsule. *Antheræ* surrounded with a ring.

SPEC. CHAR. Branches bent downwards, tapering. Leaves ovate, acute, with recurved, prominent, keeled points.

SYN. Sphagnum squarrosum. *Mohr. Ind.* 2.

NO author, as far as we are informed, has described this *Sphagnum*. It is merely mentioned in Mr. Mohr's *Index Musei Plant. Crypt.* by the above name, under which denomination we formerly received specimens gathered in *Hercynia* by our late much esteemed friend Dr. H. A. Noehden of Goettingen. We have Swedish specimens from Dr. Swartz. For its discovery in Britain we are indebted to Mr. D. Turner, who found it this summer on bogs at Belton near Yarmouth, bearing fruit in June and July.

In colour, size and general aspect at a distance this most resembles *S. latifolium*, *t.* 1405, but the tapering extremities of its branches agree with those of *S. capillifolium*, *t.* 1406. From both it differs essentially in the spreading recurved points of its broad ovate leaves, which have a central fold like a keel, and, projecting on every side, give the *squarrose* character of the species. Its capsule and fruit-stalk most agree with those of the latter, to which it is perhaps, of the two, nearest akin, differing chiefly in size, and in the breadth and posture of its leaves.

1499
1947.

Verrucaria nigrescens

Sowerby del. et publ. by Jas. Sowerby, London.

LICHEN umbrinus.

Dark-stained Wart Lichen.

CRYPTOGAMIA Algæ.

GEN. CHAR.— Male, scattered warts.

Female, smooth shields or tubercles, in which the seeds are imbedded.

SPEC. CHAR. Crust of a deep olive black, solid, most minutely cracked. Tubercles of the same colour, half immersed, slightly convex, with a central pore.

SYN. Lichen umbrinus. *Ach. Prod.* 14.

Verrucaria umbrina. *Ach. Meth.* 122.

ALTHOUGH common every where on shady rocks and stone walls, even about houses, this minute Lichen has not yet found a place in any work on British plants, except it may have been taken by some botanists, as the ingenious Acharius suspects, for *L. antiquitatis*, or *L. fusco-ater*. We confess, though we never took it for either of those, we never understood its real structure, till the descriptions of this writer, illustrated by specimens from himself, explained it to us. The specimen in our plate, more perfect than usual, as having the central pore visible on the tubercles, was sent by Mr. James Turner from Gorlestone church, Suffolk.

The crust forms a permanent spot, an inch or two wide, of a very dark olive black when wet, in which state it is in some degree soft and friable, its surface rather uneven, and very minutely cracked. When dry it grows blacker and harder. The tubercles are partly immersed, their surface a little convex, their colour rather paler or greener when wet, and they have, when perfect, a central black pore, which marks Dr. Acharius's genus of *Verrucaria*. They are always distinguishable from the crust by being round and without cracks. Careless observers might take this for *L. niger*, *t.* 1161, from which it is totally distinct in nature.

1500
1962.

Endocarpon fuscellus.

Sept.r 1. 1805. Published by Jas Sowerby, London.

LICHEN fuscellus.

Little Grey Wart Lichen.

CRYPTOGAMIA Algæ.

GEN. CHAR. Male, scattered warts.
Female, smooth shields or tubercles, in which the seeds are imbedded.

SPEC. CHAR. Crust thick, smooth, cracked, grey; black within. Tubercles minute, flat, not prominent, black.

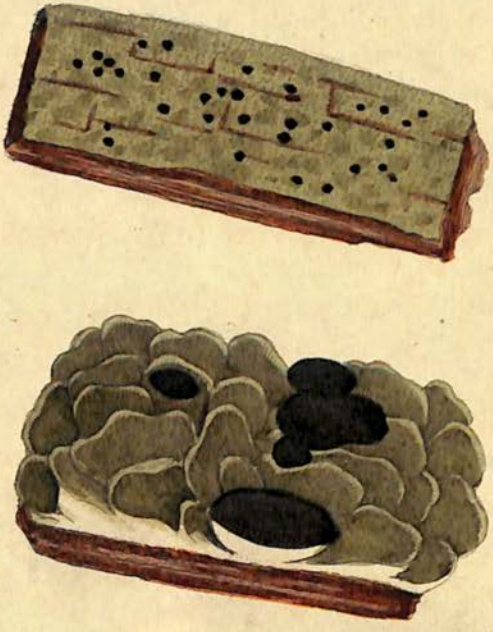
SYN. Lichen fuscellus. *Turn. Tr. of Linn. Soc. v.* 7. 90. *t.* 8. *f.* 2.

SENT by Mr. James Turner from Gorlestone church, where it was originally discovered by his brother, whose description may be found in the 7th volume of the Linnean Society's Transactions.

The crust is irregular and indeterminate, a line or more in thickness, growing on calcareous stones, to whose inequalities it conforms, but is otherwise level and smooth, of a pale grey externally, black, or variegated with green, within. It is all over deeply cracked into angular portions of various sizes, between which the black colour is conspicuous, at least in a dry state. A black tubercle of a very small size, flat, and level with the surface, commonly occupies the centre of each portion of the crust. No perforation is to be discovered. When young the tubercles are depressed and of a pale brown, exactly as in the *Endocarpon* tribe, to which we should rather refer this plant than to *Verrucaria*. If rubbed when moist the crust remains green, and the surface when cut is permanently of that colour.

1501

2113.



Psora scalaris.

Sept.r 1. 1803. Published by Jas. Sowerby. London.

LICHEN scalaris.

Olive and Black Imbricated Lichen.

CRYPTOGAMIA Algæ.

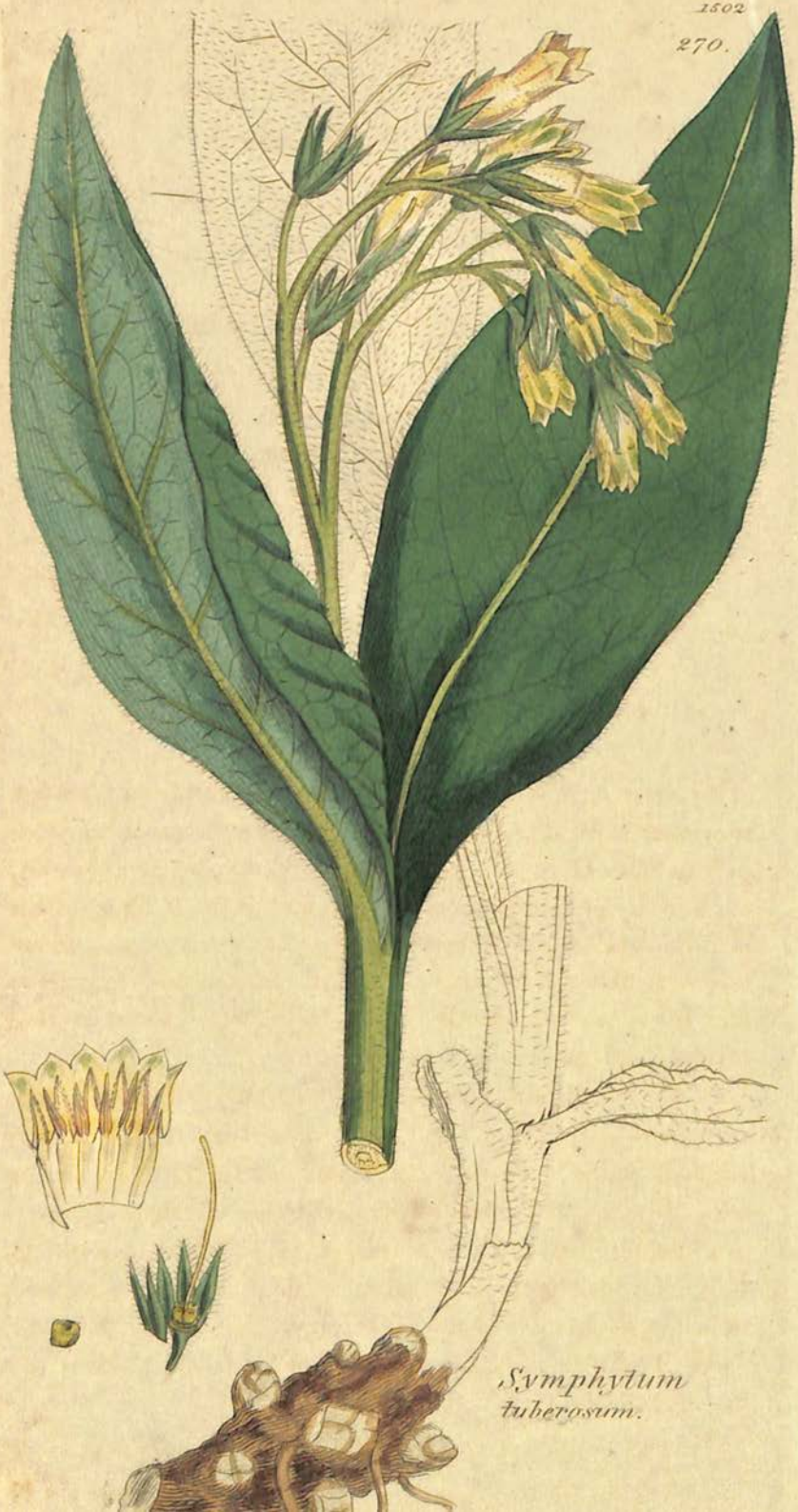
GEN. CHAR. Male, scattered warts.
Female, smooth shields or tubercles, in which the seeds are imbedded.

SPEC. CHAR. Crust imbricated, often scattered; its lobes kidney-shaped, ascending, distinct, pale olive; powdery at the edge and back. Shields flat, irregular, black, with a black border.

SYN. Lichen scalaris. *Ach. Prod.* 95.
L. leucophæus. *Dicks. Crypt. fasc.* 2. 20. *With. v.* 4. 28. *Hull.* 292.
Lecidea scalaris. *Ach. Meth.* 78.

GATHERED by Mr. James Turner on the inside of old hollow trees near Halesworth, Suffolk. We have received the same from Eton, by favour of Mr. Gotobed. The fructification, which is excessively rare, was first observed on Lord Rous's park pales at Henham, Suffolk, by Mr. D. Turner, whose specimens, compared with those of Dr. Acharius and Mr. Dickson, have ascertained the synonyms as above. Mr. Dickson's *leucophæus* is the very same plant as the *scalaris*, not a variety; but neither the *leucophæus* of *Fl. Dan. t.* 955. *f.* 2, nor the plant of Dillenius, *t.* 82. *f.* 2, is now considered as belonging to it.

The crust is composed of small prominent scaly lobes, often almost separate at their base, of a rounded or kidney-shaped form, a little concave; their inner substance milk white, their upper surface pale olive, smooth, the back and margin white and powdery. Shields sessile, scattered, of a roundish irregular form, with a flat black opaque disk, and when young a narrow border of the same colour.



Symphytum tuberosum.

SYMPHYTUM tuberosum.

Tuberous-rooted Comfrey.

PENTANDRIA Monogynia.

GEN. CHAR. Limb of the *corolla* tubular, swelling; its orifice closed with awl-shaped rays. *Cal.* in 5 deep segments. *Seeds* 4, naked.

SPEC. CHAR. Leaves ovate, slightly decurrent; the upper ones opposite.

SYN. Symphytum tuberosum. *Linn. Sp. Pl.* 195. *Lightf.* 1091. *Sm. Fl. Brit.* 219. *Huds.* 648. *With.* 230. *Hull.* 47. *Jacq. Obs. fasc.* 3. 12. *t.* 63. *Ger. em.* 806.

WE have been obliged to delineate this plant from a garden specimen at Mr. Forster's of Clapton; for although it has been sent us from Durham, many different times, by Mr. Robson, we were never so fortunate as to receive it in a fit state for drawing. We know it to be what Lightfoot intended, and we believe it may not be rare in the northern counties, though so like the Common Comfrey as to be neglected for a starved plant of that species.

It is perennial and flowers in June or July. Root tuberous, white externally, not black. Stem a foot high, scarcely winged, rough with deflexed hairs. Stem-leaves ovate, on winged stalks, which are a little decurrent. Clusters of flowers in pairs, terminal. Flowers few, yellowish white, cylindrical. Calyx but little spreading. Rays of the flower finely toothed, or roughish, at each edge, rather longer than in *S. officinale*.

Mr. Lightfoot, on the authority of his friend Yalden, first introduced this plant to British botanists.

Carum Carui.

Sept.1.1808. Published by J. Sowerby, London.

CARUM Carui.

Common Caraway.

PENTANDRIA Digynia.

GEN. CHAR. *Fruit* cylindrical, striated, somewhat elliptical. *Petals* keeled, inflexed, notched, nearly uniform. *General involucrum* of few leaves; *partial* none. *Outer flowers* abortive.

SPEC. CHAR. . . . .

SYN. Carum Carui. *Linn. Sp. Pl.* 378. *Sm. Fl. Brit.* 330. *Huds.* 126. *With.* 311. *Hull.* 64. *Relh.* 121. *Abbot.* 68. *Mart. Rust. t.* 55. *Woodv. Med. Bot. t.* 45. *Jacq. Austr. t.* 393.

C. seu Careum. *Raii Syn.* 213. *Ger. em.* 1034.

CARAWAY seeds are known to every one for their general use among confectioners, and their aromatic pleasant flavour. The plant which bears them is a native of the warm and dry parts of Europe, which has become imperfectly naturalized in England, and is often found in grassy fields and pastures; but being a biennial, and commonly mown with the grass before it ripens seed, it is seldom stationary any where. Dr. Abbot informs us it has remained for more than half a century in a lonely spot called the Park field at Thurleigh, Bedfordshire, where its seeds are annually collected for use.

The root is spindle-shaped, pale brown. Stem about 2 feet high, erect, branched, angular, furrowed, smooth. Leaves smooth, doubly pinnate, cut into linear narrow segments; the lowermost crossing each other. Umbels numerous, terminal, upright. General involucrum of 1, 2 or 3 small narrow entire leaves, often wanting: partial none, unless by a very extraordinary accident to which all this tribe are liable. Petals nearly uniform, white or very pale flesh-coloured, inflexed so as to become heart-shaped. Calyx entire. Central flowers only fertile. Fruit small, oblong, striated; each seed almost cylindrical.

Sept 1 1816 Published by Jas Sowerby London

RANUNCULUS hirsutus.

Pale Hairy Crowfoot.

POLYANDRIA Polygynia.

GEN. CHAR. *Cal.* 5-leaved. *Petals* 5, with a honey-bearing pore on the inside of the claw of each. *Seeds* naked.

SPEC. CHAR. Calyx reflexed, pointed. Stem erect, many-flowered, hairy. Leaves ternate. Root fibrous. Seeds tuberculated.

SYN. Ranunculus hirsutus. *Curt. Lond. fasc.* 2. *t.* 40. *Sm. Fl. Brit.* 592. *With.* 508. *Hull.* 122. *Relh.* 215. *Sibth.* 173. *Abbot.* 122.

R. bulbosus β. *Huds.* 241.

R. Philonotis. *Ehrh. Herb. n.* 116.

R. rectus, foliis pallidioribus hirsutis. *Raii Syn.* 247.

β. R. parvulus. *Linn. Mant.* 79. *Sm. Fl. Brit.* 593.

VERY frequent in waste or cultivated ground that is rather moist, where it may be found in flower from June to October. In the low tracts about London it is often abundant.

Root fibrous, annual. Stems one or more, upright, various in height, more or less branched, leafy, round, hollow, rough with spreading rigid hairs. Leaves ternate, hairy, pale, cut; the segments of the upper ones often linear. Flower-stalks hairy, furrowed. Calyx pointed, at length bent back to the stalk, rough with glandular hairs. Petals of a full shining yellow. Nectary covered with a scale. Seeds compressed, margined, rough on both sides with small irregular prominent sharp tubercles, which Mr. Curtis, with all his care in distinguishing this species, has not noticed, nor did we observe them till Mr. Edward Forster pointed them out. The discovery is the more important, as it proves the *R. parvulus* to be only a starved variety of this plant; which Mr. Forster has also found near London, exactly agreeing with our original specimens from Professor Gouan and Mr. Dyer.

Carex paniced.

CAREX panicea.

Pink-leaved Carex.

MONOECIA Triandria.

GEN. CHAR. Male, *Cathin* imbricated. *Cal.* of one scale. *Cor.* none. Female, *Cathin* imbricated. *Cal.* of one scale. *Cor.* none. *Stigmas* 2 or 3. *Seed* clothed with a swelling tunic.

SPEC. CHAR. Sheaths elongated, about half the length of the flower-stalks. Female spikes rather loose, distant. Fruit inflated. Stem smooth.

SYN. Carex panicea. *Linn. Sp. Pl.* 1387. *Sm. Fl. Brit.* 998. *Gooden. Tr. of L. Soc. v.* 2. 179. *Huds.* 410. *With.* 100. *Hull.* 207. *Relh.* 368. *Sibth.* 30. *Abbot.* 205. *Schkuhr. Car. n.* 93. *t.* L, l. *f.* 100.

Gramen cyperoides, foliis caryophylleis, spicis e rarioribus et tumidioribus granis compositis. *Raii Syn.* 418. *Pluk. Phyt. t.* 91. *f.* 7.

NOT uncommon in moist pastures and meadows, flowering in May and June.

Root creeping, blackish. Stem erect, 10 to 15 inches high, obtusely triangular, smooth. Leaves glaucous, short, roughish at the edges, and top of the keel. Bracteæ acute, shorter than the stem, with long, furrowed, pale sheaths. Male spikes 1 or 2, lanceolate, acute, dense, with brownish blunt scales, various in breadth, their keel green. Female spikes about 2, sometimes male at the summits, remote, erect, on slender stalks twice as long as the sheaths; their scales loosely imbricated, ovate, acute, pointless, brown with a white edge and green keel. Stigmas 3. Fruit longer than the scales, ovate, inflated, bluntish, entire, smooth, obscurely ribbed, of a light greenish or yellowish hue. Seed short, triangular, brown, very frequently infested with the disease called smut, by which it is swelled and turned into sooty dust.

Carex recurva.

Sept.r 1.1805. Published by J.r Sowerby London.

CAREX recurva.

Glaucous Heath Carex.

MONOECIA Triandria.

GEN. CHAR. Male, *Catkin* imbricated. *Cal.* of one scale. *Cor.* none. Female, *Catkin* imbricated. *Cal.* of one scale. *Cor.* none. *Stigmas* 2 or 3. *Seed* clothed with a swelling tunic.

SPEC. CHAR. Sheaths short. Female spikes cylindrical, pendulous. Fruit elliptical, triangular, roughish. Root creeping.

SYN. Carex recurva. *Huds.* 413. *Sm. Fl. Brit.* 999. *Gooden. Tr. of L. Soc. v.* 2. 184. *With.* 102. *Hull.* 208. *Relh.* 369. *Sibth.* 31. *Abbot.* 206. *Fl. Dan. t.* 1051.

Gramen cyperoides, foliis caryophylleis, spicis oblongis e pediculis longioribus pendulis. *Raii Syn.* 418.

VERY common in pastures, groves and the moist parts of open heathy places, where its short glaucous leaves render it very conspicuous both in dry and wet weather. It flowers in May and June. Few *Carices* vary more in size and luxuriance.

The root is creeping, sheathed with brown scales. Whole herb glaucous. Stem upright, from 8 to 18 inches high, roundish with 3 angles, rough upwards. Leaves erect, broadish, flat, rough-edged, much shorter than the stem. Bracteæ erect, about equal to the stem in height, with short sheaths having a small appendage on each side. Male spikes linear-lanceolate, erect, mostly solitary, sometimes numerous or compound; the scales obtuse, brown, with a pale keel. Female spikes about 2, on very long stalks, at first erect, but soon pendulous, cylindrical, very dense; their glumes ovate, somewhat pointed, blackish with a white edge and yellowish nerve. Stigmas 3. Fruit imbricated, elliptical, bluntly triangular, swelling, entire, more or less downy or rough, of a rusty green, soon becoming black. Seed short, triangular.

Carex caespitosa.

CAREX cæspitosa.

Tufted Bog Carex.

MONOECIA Triandria.

GEN. CHAR. Male, *Catkin* imbricated. *Cal.* of one scale. *Cor.* none. Female, *Catkin* imbricated. *Cal.* of one scale. *Cor.* none. *Stigmas* 2 or 3. *Seed* clothed with a swelling tunic.

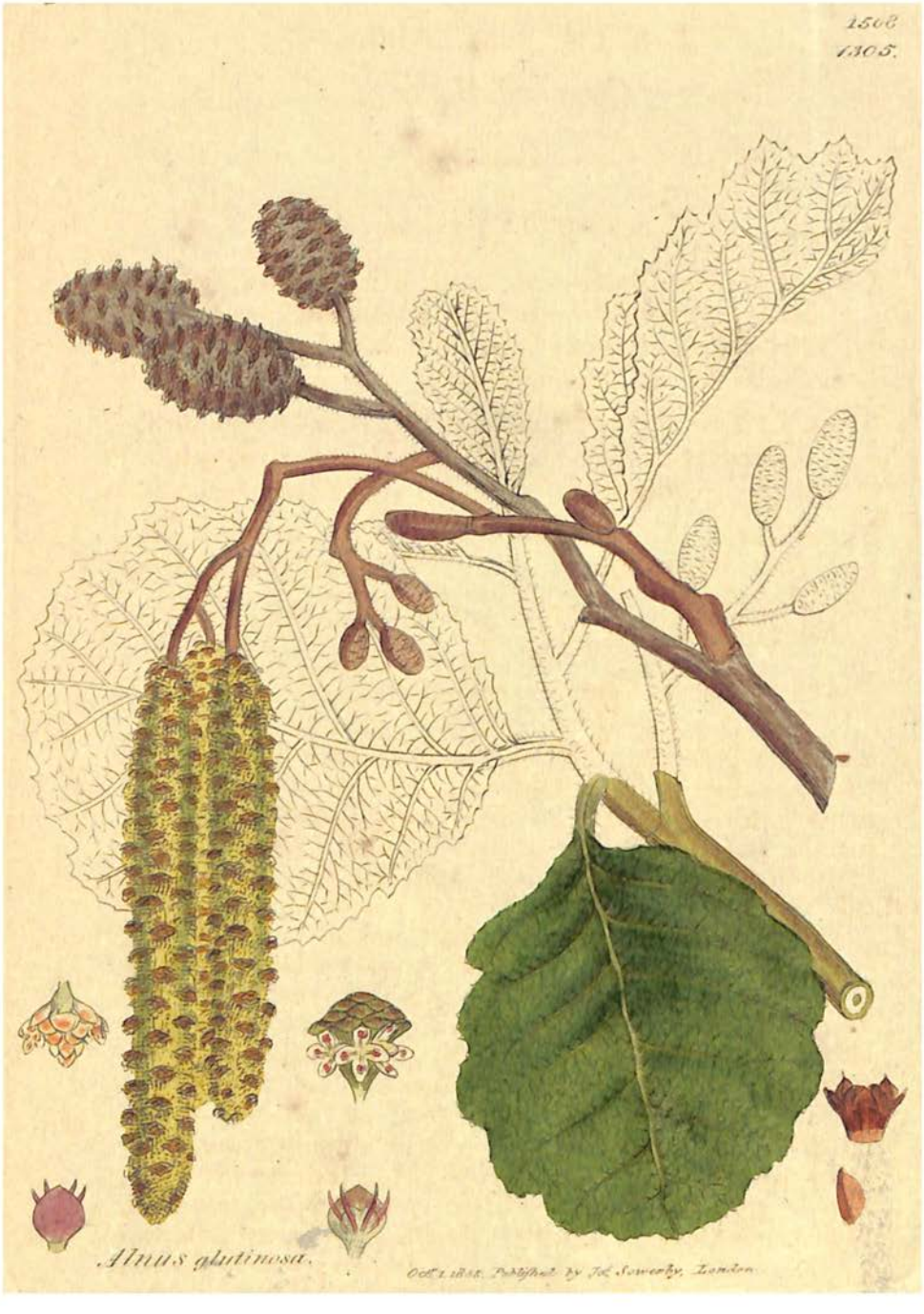
SPEC. CHAR. Stigmas two. Bracteæ auricled, not sheathing. Spikes sessile, cylindrical, obtuse. Fruit permanent.

SYN. Carex cæspitosa. *Linn. Sp. Pl.* 1388. *Sm. Fl. Brit.* 1000. *Gooden. Tr. of L. Soc. v.* 2. 195. *t.* 21. *f.* 8. *With.* 106. *Hull.* 208. *Relh.* 370. *Sibth.* 31. *Lightf.* 560.

Gramen caryophylleum, angustissimis foliis, spicis sessilibus brevioribus erectis non compactis. *Dill. in Raii Syn.* 418.

COMMUNICATED by Mr. Crowe from near Norwich, where it is not uncommon; nor probably is it rare in marshy spots throughout England. It flowers in May, or early in June.

The root is creeping, but short, and forms dense entangled tufts, yet scarcely in so remarkable a manner as Linnæus describes in *Fl. Suec.* His specimens however agree precisely with ours. The stems are from 9 to 12 inches high, acutely triangular, roughish above. Leaves erect, almost as tall as the stem, narrow, acute, of a bright and not glaucous green, rough at the edges and keel. Bracteæ like the leaves but much smaller, without any sheath, accompanied at the base by a pair of round black auricles, which are largest in the smaller bracteæ. Male spike almost always solitary, lanceolate, erect, with brown, obtuse, narrowish, green-ribbed scales. Female spikes 2 or 3, crowded, sessile, erect, cylindrical, shortish, obtuse, very dense, with elliptical, obtuse, close, black, green-ribbed scales. Fruit elliptical, broad, compressed, ribbed, green, smooth, permanent after it is ripe. Stigmas but 2. Seed compressed.



Alnus glutinosa.

Oct.1 1838. Published by J.& J. Sowerby, London

BETULA Alnus.

Common Alder.

MONOECIA Tetrandria.

GEN. CHAR. Male, *Cal.* scale of a *catkin*, of 1 leaf, 3-cleft, 3-flowered. *Cor.* 4-cleft.
Female, *Cal.* scale obscurely 3-cleft, 2-flowered. *Styles* 2. *Seeds* compressed.

SPEC. CHAR. Flower-stalks branched. Leaves roundish, somewhat wedge-shaped, waved, serrated, glutinous; downy at the branching of the veins beneath.

SYN. Betula Alnus. *Linn. Sp. Pl.* 1394, α. *Sm. Fl. Brit.* 1013. *Huds.* 416. *With.* 206. *Hull.* 210. *Relh.* 374. *Sibth.* 64. *Abbot.* 207.
Alnus. *Raii Syn.* 442. *Ger. em.* 1477.

A VERY general tree in boggy grounds about lakes or rivulets, throwing its broad arms and umbrageous foliage with much picturesque effect over the still reedy pool, and supplying the want of the oak in such parts of a landscape. It blossoms in March, or early in April, but the leaves are not fully displayed till the end of May, or some time in June.

The trunk is of a middling height and thickness, rugged, crooked, and of slow growth. The wood is reddish, firm, but brittle, used by turners, and especially to make clogs or pattens. The bark dyes linen of a dull red, and with iron brown or black. The branches are crooked, spreading, smooth; angular and glutinous when young. Leaves alternate, on footstalks, roundish, obtuse, often lopped at the end, waved, serrated, plaited, glutinous, of a deep shining green, with many parallel veins, which are downy at their base beneath. Stipulæ roundish, entire. Flower-stalks terminal, branched. Male catkins long, pendulous, cylindrical, of numerous brown scales, within each of which are 3 sessile greenish flowers. Stamina 4, short. Female catkins small, oval, ascending, reddish-brown, with entire scales. Stigmas red, linear, prominent. Cone oval, rigid, permanent. Seeds angular, 2 to each scale.

1509
1358.

Salix Smithiana.

Oct. 1. 1806. Published by Jas. Sowerby, London.

SALIX mollissima.
Silky-leaved Willow.

DIOECIA Diandria.

GEN. CHAR. Male, *Cal.* the scales of a catkin. *Cor.* none. *Nectary* a gland at the base of the stamina. *Stam.* 1—5. Female, *Cal.* and *Nect.* like the male. *Cor.* none. *Stigmas* 2. *Caps.* superior, of 1 cell and 2 valves. *Seeds* downy.

SPEC. CHAR. Leaves lanceolate, pointed, obsoletely crenate; whitish and silky beneath. Stipulæ crescent-shaped, minute. Stigmas deeply divided.

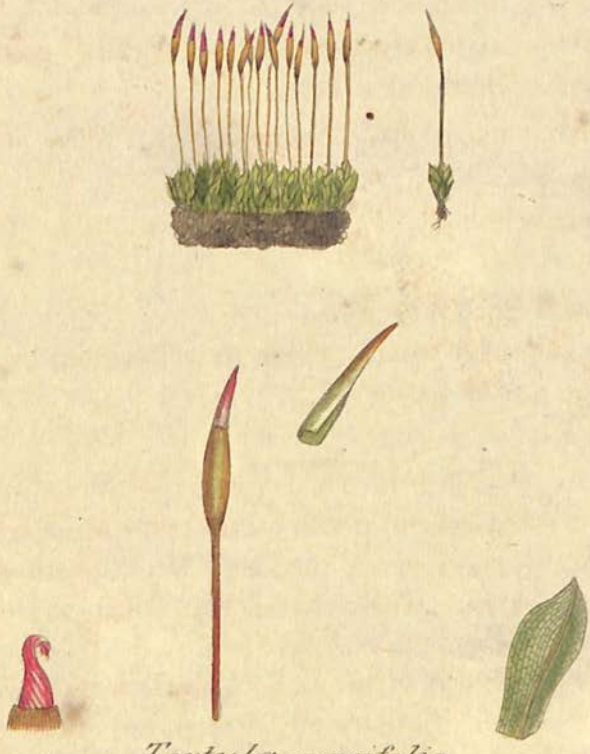
SYN. Salix mollissima. *Ehrh. Arb.* 79. *Sm. Fl. Brit.* 1070. *Hoffm. Fl. Germ.* 343. *Willden. Baumz.* 349.

DISCOVERED by Mr. Crowe in osier-grounds near Bury in Suffolk. We know not that it has been seen any where else in England, but our specimens exactly accord with those of Ehrhart, before we saw which we had fixed upon the same specific name as he has chosen. We have erred however in taking this for the true Velvet Osier, a valuable plant, much more allied to the Common Osier; nor is our *S. mollissima* of any economical use. We received the specimens with a wrong account annexed, a frequent case in the study of economical or medical plants.

The branches are erect, wand-like, round, reddish, smooth, except in a young state, when they are finely downy. Leaves alternate, on shortish downy stalks, lanceolate, pointed, slightly crenate, rounded at the base, thin and pliable; green and smooth above; silky, and very soft beneath, with a reddish nerve and curved veins. Stipulæ minute, curved, toothed, hairy. Female catkins lateral, sessile, ovate, small. Scales obovate, brown, very hairy. Germen on a shortish stalk, lanceolate, rounded at the base, silky. Style short. Stigmas linear, divided to the bottom.

1610

1658.



Tortula cuneifolia.

Oct.r 1.1805. Published by Jas. Sowerby, London.

TORTULA cuneifolia.

Wedge-shaped Screw-moss.

CRYPTOGAMIA Musci.

GEN. CHAR. *Fringe* simple, of numerous capillary teeth, spirally and repeatedly twisted together.

SPEC. CHAR. Stem very short, mostly simple. Leaves obovate, reticulated, pellucid, slightly pointed. Capsule cylindrical. Lid conical.

SYN. Tortula cuneifolia. *Sm. Fl. Brit.* 1257. *Turn. Musc. Hib.* 51.

Bryum cuneifolium. *Dicks. Crypt. fasc.* 3. 7. *With.* 811. *Hull.* 256.

B. murale β. *Huds.* 477.

B. humile, pilis carens, viride et pellucidum. *Dill. Musc.* 356. *t.* 45. *f.* 15.

WE have often sought in vain for this moss about Oxford, where Dillenius says it is very common. Mr. Turner collected the specimens here represented on some old banks at Hopton, Suffolk, near Yarmouth, in April 1805.

According to Dillenius its root is biennial. Stem very short and mostly simple. Leaves wedge-shaped, or rather obovate, entire, of a bright pellucid green, very strongly and conspicuously reticulated, furnished with a central nerve, and either quite blunt, or tipped with a small short point, never with a hair. Fruit-stalk half an inch or more in height, of a tawny hue. Capsule erect, pale brown, cylindrical, a little swelling. Veil awl-shaped. Lid about half as long as the capsule, conical, acute, slightly curved, reddish. Fringe bright red.

Its leaves are totally distinct in form and texture from the common *Tortula muralis*, with which it has been confounded.

1511

2263

Isidium coccodes.

Oct 2. 1806. Published by Jas Sowerby, London.

LICHEN coccodes.

Granulated Coral-crusted Lichen.

CRYPTOGAMIA Algæ.

GEN. CHAR. Male, scattered warts.
Female, smooth shields or tubercles, in which the seeds are imbedded.

SPEC. CHAR. Crust leprous, greyish, papillary, cracked, uneven; internally fibrous and branched. Tubercles minute, convex, brownish-grey, terminating the branches.

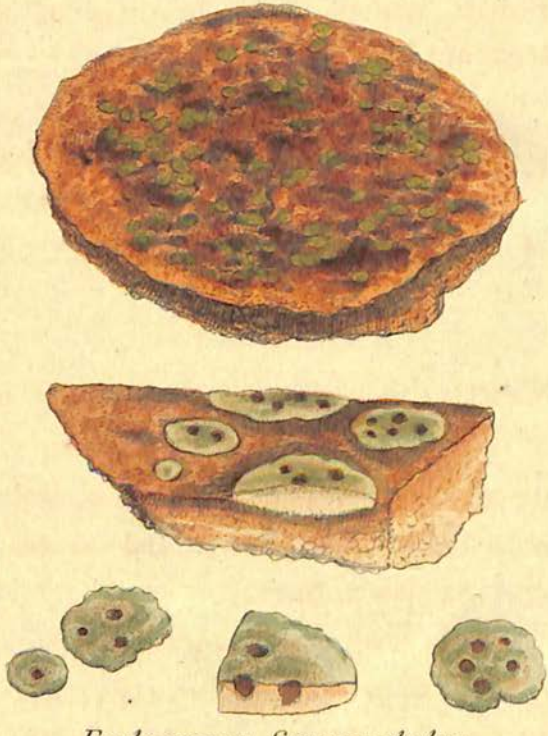
SYN. Lichen coccodes. *Ach. Prod.* 10.
Isidium coccodes. *Ach. Meth.* 139.
Lepra obscura. *Ehrh. Crypt. n.* 298?

WE gathered this on trees in Westmoreland so long ago as 1783, but did not venture to determine it till specimens from Professor Acharius proved it to be his *Lichen* (now properly *Isidium*) *coccodes*. Mr. D. Turner has found it on the park pales at Flixton, Suffolk. We are not equally sure of the synonym of Ehrhart. At least his specimen, if the same species, is in an earlier or less perfect state than ours.

The crust is uneven, leprous and greyish in appearance, when perfect covered with minute papillary tubercles, and, if we are not deceived, terminated by a smooth leafy darker coloured border like *L. fagineus*. When broken it is found to be a congeries of erect, dense, cylindrical, branched stalks, brittle like a coralline, in which it agrees with *L. corallinus* of Linnæus. The tops of these minute stalks are each tipped with a very small convex tubercle of a brownish-grey, or glaucous hue, which is presumed to be the fructification, but this tribe of Lichens are as yet in great obscurity in that respect.

1512

1960



Endocarpon Smaragdulus.

Oct.r 1. 1805. Published by Jas. Sowerby, London.

LICHEN Smaragdulus.

Little Emerald Lichen.

CRYPTOGAMIA Algæ.

GEN. CHAR. Male, scattered warts.
Female, smooth shields or tubercles in which the seeds are imbedded.

SPEC. CHAR. Frond simple, depressed, cartilaginous, peltate, roundish, smooth, greenish-yellow, with one root. Tubercles in immersed brown dots.

SYN. Endocarpon smaragdulum. *Ach. Meth. Suppl.* 29.

LONG ago sent us from the county of Durham by our worthy friend the Rev. Mr. Harriman, from whom we learn that having sent it to Professor Acharius, he has lately been informed of the above synonym, and that Mr. Wahlenberg had found the same in Norway.

This minute plant is of that tribe of Lichens called by recent botanists *Endocarpon*, which probably will be established in future as a genus. We have described one of the family *v.* 9. *t.* 595, which is now *Endocarpon Hedwigii* of Acharius. The present is very distinct, being even more minute than that, closely pressed to the exposed sand-stone on which it grows, and fixed by a central root. The frond is cartilaginous, roundish, sometimes obscurely crenate, smooth, of a yellowish green, occupied by numerous little brown dots, each of which contains an immersed concave tubercle or shield.

INDEX

OF THE ENGLISH NAMES

IN VOL. XXI.

	Tab.
ALDER, common	1508
Anemone, yellow wood	1484
Bog-moss, prominent-leaved	1498
Caraway, common	1503
Carex, glaucous heath	1506
—— pink-leaved	1505
—— tufted bog	1507
Cat's-tail, dwarf	1457
—— great	1455
—— lesser	1456
Chamomile, ox-eye	1472
Comfrey, tuberous-rooted	1502
Conferva, red sponge	1479
Cord-moss, hair-pointed	1497
Crane's-bill, stinking	1486
Cress-rocket, annual	1442
Crowfoot, pale hairy	1504
Feather-moss, alpine torrent	1496
—— blunt fern-like	1493
—— Donnian	1446
—— flat	1492
—— floating	1448
—— heart-leaved	1447
—— lesser opaque	1495
—— opaque proliferous	1494
—— silky	1445
Fork-moss, green spur	1462
—— zigzag	1491
Fox-tail-grass, orange	1467
Fucus, buck's-horn	1478
—— cartilaginous	1477
Fumitory, solid bulbous	1471
Goosefoot, oak-leaved	1454
—— round-leaved	1480
—— sharp entire-leaved	1481
Grimmia, minute oval	1490
—— recurved	1489
Hair-grass, turfy	1453
Hawkweed, orange	1469
Jungermannia, crenulated	1463
—— jagged	1476
Lichen, common black-shielded	1450
—— dark-stained wart	1499
—— earthy marsh	1466
—— grained	1464
—— granulated coral	1511
—— grey pin-headed	1465
—— Lightfootian	1451
—— little emerald	1512
—— little grey wart	1500
—— olive and black	1501
Misseltoe	1470
Neckera, pendulous	1444
—— small feathery	1443
Reed-mace, dwarf	1457
—— great	1455
—— lesser	1456
Rush, three-leaved	1482
Sallow, great round-leaved	1488
—— round-eared	1487
—— trailing	1487
Sandwort, plantain-leaved	1483
Screw-moss, wedge-shaped	1510
Shepherd's Purse	1485
Shield-fern, female	1459
—— great crested	1461
—— lesser crested	1460
—— male	1458
Spiræa, willow-leaved	1468
Swertia, marsh	1441
Thread-moss, long-beaked	1475
—— long-leaved	1449
—— pointed-leaved	1474
—— thick-edged	1473
Tremella, plaited rusty	1452
Willow, silky-leaved	1509

SYSTEMATICAL INDEX

TO

VOL. XXI.

Triandria. Tab.

ALOPECURUS fulvus — 1467
Aira cæspitosa — — — 1453

Pentandria.

Symphytum tuberosum — 1502
Chenopodium glaucum — 1454
——— polyspermum — 1480
——— acutifolium — 1481
Swertia perennis — — 1441
Carum Carui — — 1503

Hexandria.

Juncus trifidus — — 1482

Decandria.

Arenaria trinervis — — 1483

Icosandria.

Spiræa salicifolia — — 1468

Polyandria.

Anemone ranunculoides — 1484
Ranunculus hirsutus — — 1504

Tetradynamia.

Vella annua — — — 1442
Thlaspi Bursa-Pastoris — — 1485

Monadelphia.

Geranium robertianum — 1486

Diadelphia.

Fumaria solida — — 1471

Syngenesia.

Hieracium aurantiacum — 1469
Anthemis tinctoria — — 1472

Monoecia.

Typha latifolia — — 1455
——— angustifolia — — 1456
——— minor — — 1457
Carex panicea — — 1505
——— recurva — — 1506
——— cæspitosa — — 1507
Betula Alnus — — 1508

Dioecia. Tab.

Salix aurita — — — 1487
——— caprea — — 1488
——— mollissima — — 1509
Viscum album — — 1470

Cryptogamia.

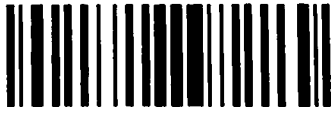
Aspidium Filix mas — — 1458
——— Filix fœmina — 1459
——— spinulosum — — 1460
——— dilatatum — — 1461
Sphagnum squarrosum — 1498
Grimmia recurvata — — 1489
——— Starkeana — — 1490
Dicranum virens — — 1462
——— flexuosum — — 1491
Tortula cuneifolia — — 1510
Neckera pumila — — 1443
——— curtipendula — — 1444
Hypnum sericeum — — 1445
——— Donnianum — — 1446
——— complanatum — 1492
——— trichomanoides — 1493
——— proliferum — — 1494
——— recognitum — 1495
——— cordifolium — — 1447
——— fluitans — — 1448
——— alpinum — — 1496
Funaria Muhlenbergii — — 1497
Bryum marginatum — — 1473
——— cuspidatum — — 1474
——— rostratum — — 1475
——— ligulatum — — 1449
Jungermannia crenulata — 1463
——— sinuata — — 1476
Lichen umbrinus — — 1499
——— fuscellus — — 1500
——— graniformis — — 1464
——— parasemus — — 1450
——— Lightfootii — — 1451
——— clavellus — — 1465
——— coccodes — — 1511
——— scalaris — — 1501
——— uliginosus — — 1466
——— Smaragdulus — — 1512
Fucus cartilagineus — — 1477
——— coronopifolius — — 1478
Conferva equisetifolia — — 1479
Tremella ferruginea — — 1452

ALPHABETICAL INDEX

TO

VOL. XXI.

	Tab.
AIRA cæspitosa	1453
Alopecurus fulvus	1467
Anemone ranunculoides	1484
Anthemis tinctoria	1472
Arenaria trinervis	1483
Aspidium dilatatum	1461
—— Filix fœmina	1459
—— Filix mas	1458
—— spinulosum	1460
Betula Alnus	1508
Bryum cuspidatum	1474
—— ligulatum	1449
—— marginatum	1473
—— rostratum	1475
Carex cæspitosa	1507
—— panicea	1505
—— recurva	1506
Carum Carui	1503
Chenopodium acutifolium	1481
—— glaucum	1454
—— polyspermum	1480
Conferva equisetifolia	1479
Dicranum flexuosum	1491
—— virens	1462
Fucus cartilagineus	1477
—— coronopifolius	1478
Fumaria solida	1471
Funaria Muhlenbergii	1497
Geranium robertianum	1486
Grimmia recurvata	1489
—— Starkeana	1490
Hieracium aurantiacum	1469
Hypnum alpinum	1496
—— complanatum	1492
—— cordifolium	1447
—— Donnianum	1446
Hypnum fluitans	1448
—— proliferum	1494
—— recognitum	1495
—— sericeum	1445
—— trichomanoides	1493
Juncus trifidus	1482
Jungermannia crenulata	1468
—— sinuata	1476
Lichen clavellus	1465
—— coccodes	1511
—— fuscellus	1500
—— graniformis	1464
—— Lightfootii	1451
—— parasemus	1450
—— scalaris	1501
—— Smaragdulus	1512
—— uliginosus	1466
—— umbrinus	1499
Neckera curtipendula	1444
—— pumila	1443
Ranunculus hirsutus	1504
Salix aurita	1487
—— caprea	1488
—— mollissima	1509
Sphagnum squarrosum	1498
Spiræa salicifolia	1468
Swertia perennis	1441
Symphytum tuberosum	1502
Thlaspi Bursa-Pastoris	1485
Tortula cuneifolia	1510
Tremella ferruginea	1452
Typha angustifolia	1456
—— latifolia	1455
—— minor	1457
Vella annua	1442
Viscum album	1470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on 02 January, 2016